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TEACHERS COLLEGE RECORD

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Current Dynamics in the Teaching of English and Foreign Languages in High School and College

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MAX R. BRUNSTETTER, *Editor*

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TEACHERS COLLEGE

RECORD

CURRENT DYNAMICS IN THE TEACHING OF ENGLISH AND FOREIGN LANGUAGES IN HIGH SCHOOL AND COLLEGE

Introduction

> **dynamics 1.** That branch of mechanics treating of the motion of bodies (***kinematics***) and the action of forces in producing or changing their motion (***kinetics***). **2.** The moving moral, as well as physical, forces of any kind, or the laws relating to them. —*Webster's Collegiate Dictionary*, Fifth Edition (1947).

THE seven articles in this issue of THE RECORD attempt to picture something of the "motion of bodies," the "action of forces . . . producing or changing their motion," and "the moving moral, as well as physical, forces" currently evident in the teaching of English and foreign languages in American high schools and colleges.

The idea of educational dynamics stems, of course, from analogies with various physical sciences. Studies in educational dynamics commonly lack the mathematical precision of the natural sciences, yet they offer useful working concepts. Early uses of the idea dealt with "dynamic" as contrasted with "static" factors. Lately, the Committee on Educational Dynamics of the Metropolitan School Study Council has worked from a concept of electricity: ". . . the amount of potential and amount of resistance will determine the amount of 'current' that will flow to the betterment of the schools."[1] An even more recent publication, *The Research Center for Group Dynamics*, by the late Kurt Lewin of the Massachusetts Institute of Technology, proceeds from concepts underlying engineering to concepts of "the structure and dynamics of complete social systems" involving four or five "crucial questions of social dynamics: What forces are keeping up this type of group life? What type of change would be brought about by what type of action? What forces would resist what changes? Under what conditions would a change be permanent and when will group living bend quickly back to previous designs?"[2]

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[1] *What Makes Good Schools? The Community Factors.* (Revised, 1947), p. 2.

TRAFFIC-SURVEY ANALOGY

The teaching of English and foreign languages exhibits all these characteristics: moving, static, potential, resistant, persistent, changeable. One of our chief problems today is to find a way of picturing them all in significant relation to one another, and also in relation to forces outside the field. Here the best analogy for seeing the complex measurables and immeasurables with which teachers of English and foreign languages must reckon seems to be that of a city traffic survey, with certain streets marked English and Foreign Languages. We must deal at once with structure and flow. The nature and speed of traffic in the high school section, for instance, are determined partly by width of pavement, by curbs, by size and character of buildings in the section, by streets coming into it, by nature of intersections, by the surrounding neighborhoods, and, not least of all, by position in the longer thoroughfare of which it is a part—with the elementary section at one end and the college section at the other. Conditions are also partly determined by the attitudes and aspirations of the travelers—elbowing, weaving, lingering, loitering, daydreaming, approving, resenting, tolerating—who are inevitably affected by the climate they live in.

Almost everyone recognizes the need for extending and rebuilding sections laid out fifty years ago. But the cutting through of ideal new thoroughfares, long since blueprinted, is hard and slow in the face of economic factors, habit factors, and sentiment. Broad new elementary highways in the more open spaces nearer the periphery of town present patterns which many travelers of the secondary section would like to see imitated, but which can be developed only by gradual means and through education of the community affected. Similarly the college section downtown, which has recently undergone considerable widening and reconstruction (but not enough for the suddenly increased college population), offers attractive new designs which the secondary section cannot at present provide. Educational counterparts of intersection bottlenecks, narrow pavement congestions, new variable speed lanes, fixed tracks, alternate routes, stubborn landmarks, blueprints for reconstructions and new express highways—all play their part in determining the dynamics in this "area" of the teaching of English and foreign languages.

BLUEPRINTS AND PATTERNS

In her article on "Gathering Forces in High School English," Ida A. Jewett provides a swift panorama of the blueprints of the past twelve years which have been put forward for remodeling the high school section, or which are soon to be used—*An Experience Curriculum*, *Conducting Experiences in English*, *A Correlated Curriculum*, *Basic Aims*, the war bulletins, *The N.C.T.E. Pamphlets on Communication*, *An Emerging Curriculum*, and the current studies of the N.C.T.E. Curriculum Commission. Such blueprints have had recognizable influence at many points. They have helped to give the high school zone an authentic business section and community identity of its own, rather than maintain it largely as a tributary sub-zone of the college section. They have advertised the vital experiences to be had *here*, rather than preparation for experiences to be had *elsewhere*. They have stressed community cooperation, and the communication factors which can be improved even while larger designs are being worked out—designs which look toward improved "areas of living," "common learnings," comprehensive "human relations," and "growth and development" programs, whenever these can be given practical form. In all these respects, of course, the secondary school section resembles the flow of elementary school traffic, suggesting the elementary school section most in the junior high school and least in the senior high school. No one will deny, however, that much of the force of these blueprints, like those in *Education for* All *American Youth*, is still largely potential because of the bottlenecks in communication which prevail in our American high schools. Yet the 11,000 members of the National Council of Teachers of English, with these designs in hand, constitute a formidable force for future development.

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[2] Kurt Lewin, *The Research Center for Group Dynamics.* (New York: Beacon House, 1947) p. 6.

In "New Patterns in College English," Lennox Grey compares the dynamics of high school and college English, with particular attention to the effect of certain obstacles in the high schools which have not characterized our colleges—the absence of which has given the colleges advantages in some of those very correlations and integrations so long advocated by secondary school educators. This does not mean, of course, that the current "broad field" programs in college humanities, social sciences, and natural sciences, or the new comprehensive Communication Skills course are more than a first stage of coordination. But they are at least a first stage, making other stages possible. Nor does it mean that the colleges are without critical bottlenecks of other kinds—notably the lack of clearly marked traffic lanes for junior college traffic (whether terminal or transfer)—which affect the English and communication skills programs. The growing force of the junior college development (approximating the Community Institute pictured in *Education for* All *American Youth*) may bring more change than any other one external factor, not only in colleges but in the high schools.

LANGUAGE

Aileen T. Kitchin's "On the Teaching of the English Language" describes reconstructions which linguists have been carrying on for some time, but which are only now gaining significant recognition as a result of the Armed Forces foreign language programs and applications in the teaching of English as a second language. It will not be easy to modernize the old familiar grammar intersections, of course, with their multitude of signposts from Latin, French, and English which long ago were put up with the idea that they would be helpful. For while they are of little but general landmark use for those who make their turns from habit, and they tend to bewilder those who need direction (who must then turn to a traffic officer to unscramble them), they nevertheless have a familiar character which many people are loath to give up or change. Sooner or later, of course, the whole intersection must be remodeled into something other than an eighteenth century crossroads, substituting a few clear, intelligible signs which can be read with a minimum of misunderstanding, and which are of a pattern to enable the initiated traveler to follow route marks easily and confidently on his own.

Daniel P. Girard's article, "The Teaching of Foreign Languages Since World War II," considers the effect of global concerns and wartime pressures on foreign language teaching in high schools and colleges. Traffic in the busy but not overcrowded Foreign Language Quarter has been accelerated by new speed lanes rather than changed fundamentally in breadth and structure. But the prospective remodeling of the language intersection, discussed in connection with English, will broaden the approaches to the various foreign languages as well.

In "Hemisphere Reciprocity," two round-table discussions have been channeled into an article by Virginia French and Philip Shuman. In one of these, five teachers from Latin America consider the study of English as a second language; in the other, five teachers of Spanish appraise the effects on the teaching of Spanish of our wartime drive for hemisphere solidarity. Here is a consideration of reciprocal traffic flow through one part of the language intersection, intent on the question: "How permanent or temporary is this two-way flow?"

MACHINES AND PEOPLE

In "The Impact of Audio-Visual 'Aids,' " C. L. Forsdale appraises the effects of new signboards, animated screens, and loudspeakers on the traffic. These arresting communication instruments can be either helpful guides or disconcerting distractions, speeding traffic or delaying it. *Ignored* is one thing they cannot be. Teachers of English and foreign languages are beginning to see that these instruments are much more than "audio-visual aids"; that instead they signal a revolution in communication.

"Workshop Dynamics," by Mary H. Davis, concludes these present studies of structure, flow, intersections, signposts, sentiments, and the like, with the most important factor of all—people. The ultimate concern in all the preceding articles, of course, has been people—students and teachers who are compelled and channeled by the forces and structures around them, and by the drives within them. This article is the story of nine selected English teachers who worked together for six weeks to find ways of serving their students with increased effectiveness. The things they were able to do and those they were not able to do will have highly representative value for anyone who wants to know how English teachers work.

OTHER SPECIFICS

In these seven articles, of course, some long familiar factors have been developed chiefly by inference. No detailed separate consideration has been given to literature, for instance. Concern with literary experience appears, however, in connection with such matters as curriculum blueprints, coordination of literature with other arts, traditional relationships of language studies and literary criticism, and literature as an important instrument of communication to be dealt with in Communication Skills and Communication Arts courses.

The relative importance of the place occupied in the community by the news, magazine, and "pocket book" stands, by bookstores, by rental libraries and public libraries, by movie theaters, by radio and phonograph record shops must all be part of any thoroughgoing survey. These are matters too often taken for granted. The English group of the Metropolitan School Study Council proposes to study some of them, and may throw new light on their dynamics.

Again, little has been said directly about interest in semantics. This is not forgotten, but is a part of the larger concern with language and communication. So also are studies of reading and readability, speaking and listening techniques, and symbolic processes generally.

GENERAL RESTRAINTS

Probably the greatest factor still implicit in all this is the curiously touching faith of school boards, administrators, teachers, parents, and even students that teachers of English and foreign languages can be trusted to move in the right direction without any more encouragement than they commonly get. As the college article points out, most high school English and foreign language teachers are expected to carry on their work without benefit of departmental or committee organization, in a spirit of sturdy individualism, on the basis of patterns laid out nearly fifty years ago. Such trust is doubtless a tribute to the individual quality of teachers—a tribute that has a different basis with different groups.

With the administrators, it is probably a tribute to the fact that teachers of English and foreign languages cause a minimum of trouble, and require a minimum of direction. With the students, it is probably a tribute to the fact that they get to know English teachers most intimately, since English classes touch personal interests more often than other classes, and students have English every year. In a recent nation-wide opinion poll, at any rate, high school students voted English their most valuable subject, albeit students are generally very frank about its deficiencies.

With the parents the faith is probably mixed with a desire for continuity between generations. Even though the high school English and modern language curriculum is not much more than fifty years old, it seems a *constant*, like an old reliable street car running along on fixed rails, sometimes slowed but otherwise not greatly affected by new traffic swirling around it. It is characteristic of American city life, of course, that the exciting innovations of 1900 (when the first venturesome surveys for tracks were made, when franchises were fought through, and when the shiny new red cars of the "rapid transit" line rocked along between muddy carriage tracks and countless empty lots) should seem ancient and eternal in 1947.

A certain affection even on the part of revolutionary curriculum experimenters seems to be discernible—or at least a reluctance to encourage change in English and foreign languages. Perhaps it is the affection of the protagonist in the beloved Krazy Kat cartoons, where drastic change would remove a foil against which to measure convention and revolt. "Are there really some current dynamics in the teaching of English?" jokes a respected frontier-thinking friend, hearing of the theme of this issue of THE RECORD. "Don't tell us you're going back on the Great Tradition." And he seems to say that he hopes not. If you are an English teacher, what do you do? You can't be ungracious to his amiable little joke, now part of our educational folklore, and lecture him. So you give the same wry smile you give a businessman when he introduces you to some of his business friends. . . "I want you to meet Mr. So-and-So. But watch your grammar. He's an English teacher."

But you look for a time—like this—when a survey of newer dynamics may be in order.

Gathering Forces in the High School English Curriculum

IDA A. JEWETT

ASSOCIATE PROFESSOR OF ENGLISH, TEACHERS COLLEGE

A DOCUMENTARY survey of the last twelve years' developments in high school English—from *An Experience Curriculum* (1935) to the current comprehensive study by the Curriculum Commission of the National Council of Teachers of English.

In 1935, the National Council of Teachers of English issued a "pattern" or "type" course of study in English entitled *An Experience Curriculum in English.*[1] In it was formulated the belief of leaders in the field that only by education in the normal, present experiences of life (rather than by preparation for ideal conditions and remote contingencies) can children be helped to understand and use advantageously their experiences past, present, and future. This document analyzes talking, listening, reading, and writing into "strands of experience," each composed of a number of specific successive experiences running through the years. For example, the speech strand consists of conversing, telephoning, discussing and planning, telling stories, dramatizing, reporting, speaking to groups. The techniques necessary for success in conducting these activities are not to be "taught" separately nor yet neglected but are to be made to function in carrying on activities of interest and value to learners. Grammar is eliminated as a separate phase of the curriculum but is integrated with expressional activities.

This "pattern" curriculum shows clearly the trend away from the subject-matter-set-out-to-be-learned type of program with its emphasis upon preparation for college. Equally apparent is the influence of the "child-centered" philosophy, with its insistence upon consideration of the needs, interests, activities, and potentialities of learners. The "social-adjustment" philosophy is seen in that the activities in English are related closely to life activities (conversing, telephoning, discussing, letter writing, and the like).

In 1936, another statement[2] of the "experience" philosophy advocated by the National Council was prepared by a group of its leaders in order to give especial attention to the problems of supervision. The thesis of this volume, like that of the *Experience Curriculum*, is that

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[1] W. Wilbur Hatfield and others, *An Experience Curriculum in English.* D. Appleton-Century Co., 1935.

[2] Marquis E. Shattuck (Chm.), "The Development of A Modern Program in English," *Ninth Yearbook,* Department of Supervisors of Instruction, N.E.A., 1936.

> English is not a subject of instruction but an aspect or element of experience, sometimes dominant and sometimes subordinate, but never disconnected from the pupil's acting and thinking and feeling. English is not a body of subject matter to be learned but a series of inescapable or desirable experiences, in which the school offers such guidance as is necessary to insure success in them.[3]

THEORY AND PRACTICE

English teachers in large numbers have attempted to carry on their work in the spirit of the philosophy set forth in *An Experience Curriculum*, but in many cases they have merely substituted for the old formal lessons in description or paragraph development new units of conversation or letter writing taught with equal lack of functional relation to real experiences and needs. As a means of helping these teachers, a committee of the Council collected into a volume descriptions of teaching which exemplified the philosophy of the pattern curriculum.[4] Still another collection of accounts of the teaching of English grew out of the Stanford Arts Investigation, in which twenty-five reports by teachers of English, foreign languages, and social studies recounted attempts to make English functional in the personal lives of students and "to develop penetrating cultural integration in the present and future by effective communication of socially significant content."[5]

English teachers have given thought to the implementation of their philosophy through correlation, integration, or fusion of subject fields, and in 1936 the Council issued a report on the subject.[6] This monograph analyzed the possibilities of correlation and described units of work in which teachers had worked together to unite the resources of two or more fields. Detailed accounts of correlation of English with other subjects have appeared[7] from time to time, but the movement for merging subject fields in high school, whether under the name of integration or of core curricula has not been widely adopted; and "it is a conservative statement to say that in 90 per cent of America's 16,000 high schools the subject curriculum is still firmly entrenched, fortified on either side by complacency and sentimental faith."[8] In the majority of American schools, English teachers agree with the "thirty schools," which after several years of experimentation decided that "putting subjects together" is not a satisfactory procedure, that the scope and sequence of the fused course is usually determined by the systematic organization of *one* of the fields, and hence the subject matter of the other is irrelevant or is in direct conflict with the purposes of the core course.[9] It is equally true, however, that many teachers of English believe that the divisions which keep teachers and pupils from realizing the essential unity of all knowledge can and should be eliminated. Until, however, a deeper and sounder basis for integration has been found and teachers themselves have been educated by means of such teaching, the practice of fusing English with other subjects will be sporadic.

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[3] Hatfield and others, *op. cit.*, p. 29.

[4] Angela M. Broening, *Conducting Experiences in English*. D. Appleton-Century, 1939.

[5] Holland D. Roberts, Walter V. Kaulfers, and Grayson N. Kefauver, *English for Social Living*, p. 18. McGraw-Hill Book Company, 1943.

[6] Ruth Mary Weeks, *A Correlated Curriculum*. D. Appleton-Century, 1936.

[7] B. J. R. Stolper and H. C. Fenn, *Integration At Work: Six Greek Cities*. Bureau of Publications, Teachers College, Columbia University, New York, 1939.

Frances G. Sweeney, Emily Fanning Barry, and Alice E. Schoelkopf, *Western Youth Meets Eastern Culture*, Bureau of Publications, Teachers College, Columbia University, New York, 1932.

[8] Harold Spears, *Secondary Education in American Life*, p. 103. American Book Company, 1941.

IMPACT OF WAR

The figures on American illiteracy revealed by CCC and army records[10] shocked all thinking Americans. The fierce ideological conflicts which began to rage during the decade before Pearl Harbor and are even yet making difficult, if not doubtful, the winning of a just and enduring peace, gave dramatic emphasis to long-held beliefs that ideas are weapons and words are bullets. Hitler's perverted use of language awoke the public to some awareness of the power of language. People began to realize also that the vast increase in the number of listeners made possible by voice amplifiers, radio, and cinema has multiplied the power of words for good or evil. Even between people who speak the same tongue and have no wish to deceive, words are used with such variations of meaning (democracy, free enterprise, freedom of speech, liberal, reactionary, soldier, father) as to cause unlimited controversy. When words are deliberately misused with intent to deceive, the results can be disastrous.[11]

By countless such teachings educators have been forced to conclude that the right use of language is as crucial to national and individual life as is control of atomic energy; that words, like atomic power, may be cruelly destructive or fruitfully energizing, and that "a mastery of the various arts of using one's own language is the most universal of all educational objectives."[12] By the ruthless logic of events teachers have been made increasingly aware of the importance of language as the basic instrument of all thought and communication and of the urgency of the need to convey this awareness to the youth in our schools. They are beginning to realize the implications for them of Mumford's words:

> . . . man's greatest triumph in producing order out of chaos, greater than law, greater than science, was language. To keep the channels of human communication clean is a duty as primal—and holy—as guarding the sacred fire was for primitive man. He who debases the word, as the fascists have so unsparingly

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[9] H. H. Giles, S. P. McCutchen, and A. N. Zechiel, "Exploring The Curriculum," Vol. 2 of *Adventure in American Education*, p. 35. New York: Harper and Bros., 1942.

[10] Ruth Kotinsky (*Elementary Education of Adults*) declares that the number of persons in the United States who cannot read and write well enough to meet the requirements of an ordinarily literate environment is approximately four times as great as reported by the census.

[11] See Russell Porter, "Semantics a Red Weapon," *New York Times*, November 2, 1947, Section 3, p. 1, discussing the Report of the President's Committee on Civil Rights.

[12] N.E.A., *The Purposes of Education in American Democracy*, p. 53. Educational Policies Commission, 1938.

done, breeds darkness and confusion and all manner of foulness.[13]

Teachers of English are coming to feel that they must use pupils' experiences with language in such way as to give due attention to the emotional, psychological, and social factors involved.

PAMPHLETS ON TEACHING OF COMMUNICATION IN TIME OF WAR

The advent of war brought out a number of documents published by government agencies with the cooperation of the National Council of Teachers of English. Among these were *The Communication Arts and The High School Victory Corps;* "Pre-Induction Needs in Language Communication and Reading," *Education for Victory*, the War Department's investigation into the basic language needs of soldiers; and the Treasury Department's *The Teacher of English and the War Savings Program.* All of these suggested ways of using the teaching of English as a communication art to promote the war effort. The Council also issued a series of pamphlets setting forth its analyses and recommendations for the teaching of English as a communication art.[14] All of them stress the need of accuracy and effectiveness in the skills of listening, speaking, reading, and writing as basic to the arts of survival in war and in peace. All emphasize the importance of the ability to *use* language in meeting personal and group needs.

N.C.T.E. STATEMENT OF BASIC AIMS OF ENGLISH INSTRUCTION

Early in 1942, hundreds of members of the National Council of Teachers of English united in an expression of their views concerning the nature and purposes of their work as teachers of English. This authoritative statement, entitled "Basic Aims for English Instruction in American Schools,"[15] is an articulation of firmly held convictions of this representative body of teachers of English (with more than ten thousand members and nearly one hundred affiliated organizations) regarding the fundamental role that the study of the language arts and literature should have in a republic of freedom-loving citizens, and as such is given extended summary here. An effort has been made to give the substance of the report accurately, using, whenever possible, the exact words of the statement.

The committee declares that "Language is a basic instrument in the maintenance of the democratic way of life"; and that intelligent living in a democracy requires ability to read intelligently; the habit of keeping informed through periodicals and books, by public discussion, by radio, and by motion picture; power to think clearly even on emotion-befogged topics; and ease in using the language techniques of discussing, formulating principles, and reaching conclusions.

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[13] Lewis Mumford, *Faith for Living*, p. 201. New York: Harcourt, Brace and Company, 1940.

[14] Lennox Grey and Consultants, *What Communication Means Today;* Helen G. Hanlon, Miriam B. Booth, and Committee, *Junior High School English;* Alice Sterner and others, *Skill in Listening.*

[15] *The English Journal*, Vol. XXXI, No. 1, pp. 40-55, January, 1942; also published as *Pamphlet No. 3*, The National Council of Teachers of English, Chicago.

The pronouncement continues by maintaining that "Language study in the schools must be based on the language needs of living," and that "The vital program in language uses every kind of experience significant in the life of the individual." These principles demand that conversing, discussing, letter writing, preparing reports, making talks, and similar activities be given special emphasis in the school program.

The enrichment of personal living and the deepening of understanding of social relationships should receive primary emphasis.

Through the program in expression the pupil may clarify his own thinking, integrate his personal experiences, stimulate his imagination, and find an outlet for his thoughts and feelings. Through literature chosen with his peculiar needs and capacities in mind, he may gain an insight into human motives essential to more intelligent understanding of himself and more sympathetic appreciation of others.

The reading materials used should be of the highest literary standards commensurate with the reader's understanding and the growth of his interests in reading. Guidance in choice of materials and the establishment of more discrimination in magazine and book selection and in choice of radio programs and of motion pictures are major responsibilities of instruction in English.

English uses literature of both past and present to illumine the contemporary scene . . . The literary heritage has vital significance for the pupil capable of responding to it intellectually and emotionally, as a means of interpreting experience and as an instrument of growth —not, however, as a storehouse of experiences unrelated to the problems with which the world grapples today. Insight into the present is the ultimate goal—insight in terms of a growing concept of the good life, by means of which the direction of the future may be determined.

Among the nations represented in the program in literature, America should receive major emphasis. Through the deeply personal records of men and women portrayed in American biography, fiction, drama, and poetry, and the spirit caught from our songs and orations, young people may grasp something of the ideals which prompted the founding of this nation, the spirit of its leaders, and the meaning of the heritage which is theirs. In addition to the literature of our own country there should be literature of other peoples which helps us to understand the influences that bind us to the rest of the world and gives insight into the ways of life of other peoples.

The goals of instruction in English are, in the main, the same for all young people, but the heights to be attained in achieving any one of them and the materials used for the purpose will vary with individual need.

Creative writing, reading for pleasure and relief from personal problems—satisfaction of all kinds of interests, abilities, and needs may be found in the program.

"English pervades the life and work of the school." Ability in expression contributes to and depends for motivation and practice upon every experience of the school day. Teachers of every subject can and should help pupils increase their skill in getting thought from the printed page, improve their power to understand cause-and-effect relationships, to clarify their ideas through reading and listening, and to state their ideas adequately and accurately, practicing the conventions of acceptable speech and writing.

"English enriches personality by providing experiences of intrinsic worth for the individual." The program in English offers wholesome enjoyment and recreation, taps innumerable sources of interest, and encourages young people to explore their powers and to give expression to their personalities through concrete and imaginative presentation of human experience; literature assists young people in crystallizing ideals of personal conduct, in attaining an adequate personal philosophy of life, and in providing an effective stimulus to action. This point of view rejects the notion of English as merely a tool. English *is* a tool, a valuable instrument of thought and expression, but, in addition, it offers rich resources of the spirit.

"Teachers with specialized training are needed for effective instruction in the language arts." They must understand the relationship of the teaching of English to the major social objectives of today's world, and should themselves be the product of teaching which puts social awareness and the attainment of social insights above mere knowledge of literary history and literary techniques. They must know and like young people and books, and be able to bring the two together; they must be qualified to direct young people in the language activities important for practical needs and for personal growth; "they must be able to lift language and literature out of the more inflexible categories of the scholar and relate them directly to those activities in which they have significance for young people."

CHANGES IN CONCEPTS OF PURPOSE OF SECONDARY EDUCATION

Yet another influence of the war is to be seen in the pronouncements of national organizations of educators outside the field of English. For some years now, beginning even before the war forced a re-examination of the purposes of education, many groups have been issuing considered statements of their beliefs regarding the nature and purposes of education in our republic.[16] These reports all declare that the purpose of American education should be to meet the needs of young people living democratically and to preserve and extend the way of life in which Americans believe. In the words of the Progressive Education Association Commission on the Relation of Schools and Colleges.

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[16] Alexander J. Stoddard (Chm.), *The Purposes of Education in American Democracy.* N.E.A., Educational Policies Commission, 1938.

American Youth Commission, *What the High Schools Ought to Teach.* American Council on Education, 1940.

Alexander J. Stoddard (Chm.), *Education for All American Youth.* N.E.A., Educational Policies Commission, 1944.

John J. DeBoer (Editor), *The Subject Fields in General Education,* A Report to the National Commission on Cooperative Curriculum Planning. D. Appleton-Century, 1941.

Wilford M. Aikin (Editor), *Adventure in American Education,* The Story of the Eight-Year Study. 5 volumes, Harper & Brothers, 1942.

> The purpose of general education is to provide rich and significant experiences in the major aspects of living, so directed as to promote the fullest possible realization of personal potentialities, and the most effective participation in a democratic society.[17]

The acceptance by leaders in English of these views regarding the major purpose of education in a democracy is suggested by the following statement from a former president of the National Council of Teachers of English, writing in a publication prepared by direction of the executive committee of the Council:

> It is not enough for young people to know how to listen, to speak, to write, and to read. Their experiences in communication should have direction. In recent years the values to which we in our free society are committed narrowly escaped extinction at the hands of fascist enemies, whose ideology is not without powerful instruments available to our society in the defense of its own purposes and ideals. Communication in the high school should be directed toward the achievement of those attitudes, beliefs, and purposes which will strengthen youth's devotion to the ideals of personal freedom, economic security, and equal rights for all regardless of race, religion, or cultural background. The broadening of the allegiances and sympathies of youth to include the peoples of all nations has become a fundamental necessity in a day when international cooperation and good will is the only alternative to future destructive wars which can destroy all we know of civilization. . . .[18]

EMERGING CURRICULUM IN ENGLISH IN SECONDARY SCHOOL

In 1946, an important and carefully considered statement of the nature, purposes, materials, and procedures of English as a subject field was prepared by a group of spokesmen for the National Council of Teachers of English and issued as a bulletin of the National Association of Secondary-School Principals. This publication, appropriately named *The Emerging Curriculum in English in the Secondary School*, gives thoughtful consideration to varied phases of the teaching of English and shows the effect of the war-impelled re-evaluation of the purposes and methods advocated for the teaching of English. Indicative of the trends of thinking among leaders in the teaching of English are such titles as: "English Instruction in Education for Democracy," "Control of Language: A Major Problem of Education," "Reading, a Social Function," and "English as a Help in Developing Mature Personalities."

The criteria for determining the effectiveness of a secondary school program in the language arts also reveal the philosophy underlying the teaching of English advocated by the makers of the "emerging curriculum in English." They are as follows:

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[17] Commission on the Secondary School Curriculum, *Mathematics in General Education* (New York: D. Appleton-Century, 1940), p. 43.

[18] John J. DeBoer, "Standards for Appraising the Language Arts Program of the Secondary School," *The Emerging Curriculum in English in the Secondary School*, p. 44. Bulletin of National Association of Secondary-School Principals, February, 1946.

1. Is the school providing a balanced program of appropriate, diversified experiences in all types of language communication?

2. Is the school systematically developing in youth the abilities required for democratic group thinking and decision?

3. Is the school encouraging youth through reading and various kinds of creative expression to clarify their own thinking about and attitudes toward personal problems, goals, ideals, ambitions?

4. Is the school giving systematic guidance in the development of young people's ability to express ideas, in speaking and in writing, with precision, clarity, and vigor?

5. Is the school helping youth to deal intelligently with the multiple and shifting meanings of words, and to distinguish clearly between the symbol and the reality it represents?

6. Is the school developing in young people the ability to listen effectively?

7. Is the school aiding young people in the cultivation and maintenance of language habits acceptable among literate English-speaking people?

8. Is the school giving adequate aid to young people in the cultivation of clear, pleasant, and correct speech?

9. Is the school assisting young people in attaining their full individual development in reading power?

10. Is the school expanding the young people's range and depth of appreciation of worthy literature suited to many moods, interests, situations, and individual preferences?

11. Is the school broadening and refining young people's tastes in radio programs and photoplays?

12. Is the school effectively utilizing language and literature experiences in promoting devotion to the democratic way of life?[19]

N.C.T.E. AT WORK ON THE CURRICULUM

Impelled as never before by a sense of the urgency of the need of a literate citizenry in a democracy, the National Council of Teachers of English has begun a nation-wide study of the curriculum in the language arts from kindergarten through college. This curriculum will attempt an integration of subject matter, the social situation, and the psychology of the learner. Emphasis will be placed on English as communication; stress will be laid on the two-way nature of the process of dealing with words; and an attempt will be made to find the kinds of experiences which will ensure adequacy in meeting individual and group needs in the use of language.

The Curriculum Commission of the Council has distributed among its members a 36-page mimeographed statement of its platform, which is briefly summarized in the following paragraphs by the Director of the Commission:

> The platform recognizes, first, that the program of the school takes its rise from the social philosophy and needs of the times—that it must fit the individual to play his part in the life of the world about him and, at the same time, help him to live richly, to achieve personal satisfactions in harmony with his own potentialities and desires, and to develop assurance and authority in his own right. It urges, also, that we offset the mechanistic tendencies of our day by giving large emphasis to spiritual values, to the development of an adequate philosophy of life, to the arousing of intellectual curiosity, to the stimulation of critical

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[19] DeBoer, *op. cit.*, pp. 40-45.

> thinking, and to the improvement of social sensitivity in human relationships.
>
> It calls attention to the importance in modern life of mass modes of communication, such as the radio, the motion picture, the public forum, the periodical and newspaper, and to the need of developing among young people the power to use these mediums intelligently and the capacity for critical examination of what they present.
>
> Our platform recognizes the indispensability of mastery of language as the basic instrument of all thought and communication, urging that we foster a program which will extend the opportunity of young people to grapple with the actual expression of ideas under expert guidance for valid social purposes and to learn in the approach to increasingly complex and challenging problems those skills of reading essential to intelligent living today.[20]

The Curriculum Commission debated for some time the nature of the organization of its work; whether committees should be appointed according to the larger outcomes of education, such as preparation for life in a democracy, understanding of human relationships, promotion of individual emotional stability, and preparation for vocations; or according to aspects of the language arts, such as reading and literature, writing, speaking, and listening. The latter organization was finally agreed upon, with the understanding that primary emphasis within each area should be given to the larger personal and social goals of education to which instruction in English should contribute. A special committee has been assigned to work intensively on each aspect and phase of English: grammar and usage, literature and reading, writing, talking and listening. Problems of organization are being studied: (1) continuity within the program; (2) care for individual differences; and (3) integration of the language arts with all the situations in which pupils use language in home, school, and community.

It can be seen that the new curriculum will mark an advance over the *Experience Curriculum* comparable to that which the 1935 pattern showed over the 1890-1930 curricula. The *Experience Curriculum* emphasized the practical uses of English instead of the belletristic purposes of earlier programs; and the new study will stress the emotional, psychological, and social factors involved in mastery of language. The movement has been from aesthetic to practical to moral–spiritual uses of language.

A heartening example of what can be done when an entire school system works toward the goal of democratic living is seen in the work of the Baltimore schools. There, it is asserted, "All curricular and extracurricular activities in the Baltimore program have been focused on the development of civic competence."[21] Among the activities listed for the fields of English and the social studies were these: analyzing controversial issues; practicing the democratic way of life, including the democratic process of group discussion and decision; strengthening the ideals of democracy through creative expression in art, music, speaking, reading, and writing, and through participation in welfare projects. World citizenship and intercultural cooperation were emphasized by study and action programs: correspondence, contributions to educational reconstruction, junior town meetings (two international radio programs allowed participation with students in England), participation in the New York *Herald-Tribune* Youth Forum, use of student newspapers and school assemblies, an Atomic Energy Institute, and other activities. United Nations youth groups prepared radio programs, sponsored city-wide meetings for adults and students, and brought thirty-one students from Latin America and Canada into the Baltimore schools.

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[20] Dora V. Smith, "The Progress of the N.C.T.E. Curriculum Study," *English Journal*, Volume XXXVI, No. 2, February, 1947, pp. 66-73.

[21] Board of School Commissioners, "Baltimore's Schools: The Superintendent Reports to the People." *Baltimore Bulletin of Education*, Volume XXV, No. 1, September, 1947, pp. 37-42.

IMPLICATIONS FOR TEACHER EDUCATION

In the statements described in the foregoing pages are many implications for the education of teachers. The "Basic Aims" statement asserts that language is an all-school job.

> *English pervades the life and work of the school.* Language power cannot be acquired in a vacuum. It develops in the process of daily living—it involves grappling with ideas and giving them adequate expression in the achievement of ends toward which they make a significant contribution. Skill in getting the thought from the printed page is an important factor in every subject where reading is used in the acquisition of knowledge or as a stimulus to thinking. Adequacy and accuracy of statement, understanding of the relationships of cause and effect, determination of precise meanings, and clarification of ideas through reading and expression are language powers basic not alone to the teaching of English but to intelligent progress in every aspect of the curriculum. It is therefore the responsibility of all teachers to see that young people, in the carrying-out of their daily programs, grow in language power through the development of careful habits of expression and the practice of correct forms and conventions.[22]

Teachers of English must be helped to realize that language is a complex activity which involves all the higher powers of the human mind and body; that it is not textbooks, sets of rules, or courses of study but is a way of behaving; that reliance upon "correctness" as a matter of fixed rules is as outmoded as Newtonian physics. They must be shown how to organize and teach the whole field of grammar or linguistics in such a way as to develop in young people a keen interest in making their communication effective. In order to do this they must be made acquainted with the meaning for education of recent scientific studies of language (Sapir, Bloomfield, Leonard, Fries, Pooley, and others). Teachers must be able to guide young people to constantly more effective adjustment through language—adjustment to other people and to their own needs as individuals. They must constantly strive to develop in their students greater ability to think clearly and critically.

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[22] *English Journal*, Vol. XXXI, No. 1, January, 1942, pp. 51-52.

They must be quick to see opportunities for providing practice in listening to other people's information, opinions, and ideas in order to clarify and modify the listeners' own thinking. The schools must develop in youth ability to talk and write with sincerity and with some clarity and effectiveness. Teachers of English need to know how to develop in youth the ability to read for information and for pleasure: to analyze the thinking and weigh the arguments presented, and to experience the emotions and vicarious living to be had from drama, fiction, and verse.

The Curriculum Commission proposes to consider the relationship of the English curriculum to the adequate training of teachers with the conviction that—

If teachers are to guide young people in the experiences outlined in this study, they must have the same kinds of experiences in their program of preparation.

The best curriculum is useless if teachers are not trained to sense its purposes, to carry out its provisions, and to use the materials suggested in it. To follow a program based on the principles described in the platform of the Curriculum Commission, the teacher of the language arts will require (1) a broad general education adequate to intelligent living today; (2) specialized training in reading, writing, speaking, and listening, similar in range and in emphasis to the program he is expected to teach; and (3) adequate professional preparation to understand the purposes of growth in young people, and the methods and materials best suited to their stage of development.[23]

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[23] Dora V. Smith, "The Progress of the N.C.T.E. Curriculum Study." *English Journal*, Vol. XXXVI, No. 2, February, 1947, p. 69.

New Patterns in College English: Communication Arts in the Making

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FOLLOWING World War I, high schools and colleges both set out to develop correlations and coordinations. Why has college English moved ahead more rapidly, particularly since World War II?

LEGENDS of "college English conservatism" are so firmly fixed that it is hard to believe our college programs may be more responsive to current educational dynamics than our secondary school programs. Yet there are signs suggesting just that. In fact, some of these signs suggest that they have been more responsive throughout the past fifteen years to many of the very things we professionals in Schools of Education have been intent on—to ideas of correlation, to infusion of potent new ideas, to the adaptation of the findings of significant investigations. This does not mean that college teachers are abler or more alert. In my experience, they are not. It means rather that they travel under different conditions and have had lucky breaks.

CORRELATIONS, COORDINATIONS, INTEGRATIONS

Consider the drive for correlations, coordinations, integrations. Following World War I, high school and college leaders alike set out energetically to synthesize the findings of more than half a century of specialized research and teaching, to break through the compartmentalization of subjects which had grown up on the basis of that once new and exciting research. High school and college leaders took different routes toward their goals and seem to have wound up at different destinations, in need of new roads to connect them. High school leaders saw the abolition of departments as the readiest solution to compartmentalization, except in large city systems where departments were retained for administrative convenience.* Comprehensive curriculum committees or grade-wide committees were sometimes established to provide for interchange of ideas, but more often no adequate substitute for the old department, as a means of interchange, was provided. As a result, English teachers were isolated not only from the teachers in other fields as they had been before, but from one another as well, except for casual exchanges at lunch or in the common room. In many schools it was *lèse majesté* for English teachers to suggest anything resembling department meetings. Anyone seeing the English teachers busy with school plays, newspapers, yearbooks, clubs, and other activities involving the whole student population, would hardly be able to think of the English teachers as isolated. But they were isolated from one another by their lack of organization and by their excess activity. There was one very important compensation. They were closer to their students than most teachers, as a recent *Scholastic Magazine* poll of student opinion on the value of various high school subjects suggests.

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*Based on correspondence with state and city departments of education in 1946.

Because administrators were commonly trained in social foundations of education, and because the social sciences were the first of the broad fields to achieve status, high school teachers of history and civics found leadership and encouragement to work out coordinations in the name of the social studies, and to provide a core of sorts for the curriculum. But while English teachers were widely encouraged to correlate their work with social studies, neither they nor their social studies colleagues were prepared to work out more than an uneasy alliance, usually on an historical or topical basis—not the most rewarding approaches to language, literature, or communication skills for high school students. The National Council of Teachers of English prepared helpful suggestions in *An Experience Curriculum, Conducting Experiences,* and *A Correlated Curriculum,* but there was no good way to channel these materials to more than a tenth of the English teachers over the country.

In colleges and universities, in contrast, the strong impulse toward coordination following World War I sprang directly from circumstantial experience with War Aims courses, which had brought together experts from various departments. At Columbia University, for instance, the emphasis fell heavily on the social sciences. At the University of Chicago the pioneer course in The Nature of the World and Man put greatest stress on natural sciences but included materials from other fields. Thus two of the modern broad fields correlations were established. These examples of synthesis in social sciences and natural sciences merged with certain long generating comparative studies in art, literature, language, and religion, and with the Great Books programs developed by Erskine and others for soldier-universities abroad, to provide the impulse for the development of the first humanities courses. These new courses deal with the expression of human values in the various arts, philosophy, religion, and the "history of the human spirit." A further push to these dynamics came from the depression following the economic crash of 1929. The depression called for a re-examination of individual human values, social values, and scientific values on a comprehensive scale. College and university brain trusters were called to Washington to help repair the social fabric; others felt called upon at home to repair the educational fabric. There was some hope even that coordinations might offer economies; but, of course, this hope for saving of money was seldom realized.

College departments were not abolished in the process. Instead they were one important means for achieving coordination. English staffs met more frequently than before to consider ways to serve studies in the humanities, social sciences, and natural sciences. Some English instructors served through contributions made directly to humanities courses. Others contributed more broadly through service to all fields in the English skills courses. So, in scores of colleges which developed these comprehensive coordinations between 1931 and 1942, teachers of English were semi-alerted for further striking changes prompted by the experiences of World War II.

VARIED WARTIME PRESSURES

High school and college teachers of English felt the effects of the Second World War in conspicuously different ways.

High school English teachers increased their general service activities in scrap drives, stamp drives, and other Victory Corps activities. They did a good job with them. But these were simply more of the extracurricular work they had been doing. The curriculum and methods of instruction were not greatly affected, despite flurries of "air-age" instruction to point young men toward the air corps, or Latin-American studies for hemisphere solidarity, or transformations of English literature into world literature for "global outlook," and the like. In part the lack of fundamental change or notable broadening was due to lack of time. But it was due also to the continued isolation of high school English teachers—often an increased isolation because administrative offices were so jammed with wartime publications of many kinds that even free government publications could not get through the bottleneck to English teachers. The U. S. Office of Education, the War Department, and the National Council of Teachers of English sought collaboratively to meet a widespread demand of English teachers for vital new approaches. A "Pre-Induction Program in Language Communication and Reading" was prepared and published in *Education for Victory*, offering a fourfold approach to the communication skills of reading, writing, listening, and speaking. A bulletin on *The Communication Arts* was prepared by a committeee on the communication arts and published by the U. S. Office of Education. High school English teachers who received copies of these publications have testified to their value in broadening and invigorating the program. But the lack of clear broad channels kept them from reaching any large number of English teachers. Most high school teachers of English never saw them.

At the same time, similar though less extensive materials on the teaching of communication skills were prepared by some of the same consultants for the Army Specialized Training Program and the Navy College Program. The effect was remarkably different. The bulletins went to all college English and Speech staffs offering instruction in the new Army and Navy Communication Skills courses. English and speech instructors were by no means always happy with their collaborations in Army and Navy programs. But as a result of the wartime association of departments, enlarged cooperative postwar Communication Skills programs have sprung up in many colleges, with the prospect that such programs will largely supplant the old freshman composition courses in the next ten years. So far, only a few high schools have developed anything comparable, although there are signs that they will do so as they come into contact with these and other newer ideas being developed by the current nation-wide curriculum study of the National Council of Teachers of English, which seeks coordination and articulation at all levels and across many fields.

VARYING DISLOCATIONS

Obviously the administrative patterns under which high school and college teachers worked were not the only factor accounting for differences. During the war, there were important differences in morale attending pre-induction and post-induction instruction. The school population flow was away from the high schools, with acceleration toward military service, industry, and college. A special flow was directed toward college.

Many other forces also were working on the college staff. English teachers were assigned to the teaching of meteorology, mathematics, physics. In some respects, they were only sharing a kind of experience that many a high school English teacher had encountered in ordinary times, with assignments to social studies, civics, or science. But the plunge was far greater for the college teacher, not simply because it was unprecedented but because the effectiveness of this teaching might have fairly immediate life-or-death consequences. Furthermore, practically the whole staff taught courses at the freshman and sophomore levels, and was forced to consider whether the patterns of instruction were the best that could be devised. This has tended, paradoxically it might seem, to speed a separation of English at the junior college and senior college levels, as instructors at both levels have recognized the differences between English for general education and English as a field of specialization. More will be said about this in connection with junior college developments. In all fields, audio-visual instruction moved ahead in the colleges with a power that had long been dreamed of but seldom achieved in high schools. The postwar consequences of such exposures seem to have been to shake up old practices in the colleges to an extent that old practices in the high schools have not been shaken up.

NEWER IDEAS

Beyond these conditions of instruction are certain dynamics of idea and certain wartime contacts with government activities, harder to gauge but no less powerful. As in the depression brain trust days, many college administrators and teachers were called to

Washington or other government centers. Relatively fewer high school teachers had such experience. Washington became a great communication laboratory. To overcome our lack of organization and our weakness in democratic communication under war conditions, as compared with the long-planned highly-organized Axis development of all instruments for communication, our government brought together experts on print, radio, film, public opinion, propaganda analysis, library service, the psychology of communication, and so forth, from the laboratories in a dozen universities where they had been inconspicuously at work studying various aspects of the revolution in communication of the past fifty years. In company with journalists, publishers, playwrights, poets, publicists, advertisers, and communication analysts, these college and university experts went into OWI and the information offices of scores of other government agencies. In a short span of three or four years they carried on programs of application and investigation in communication processes that could not have been matched by ten years of university research. Now they have taken their findings back to the colleges and universities, where these findings are being put to work in the newer communication studies of many kinds, including the new Communication Skills courses.

The new syllabus for the Communication Skills course at the State University of Iowa is typical of the impulse, and suggests the relation to previous coordinations as well:

> The logical material for consideration in a course like this is communication itself, anything from highly individual problems of adjustment to the great mass media like the press, radio and motion pictures.... While developing your skill in communication, you will consider aspects which fall in the natural sciences—the psychology, physics, and physiology of communication; you will consider aspects which fall in the social sciences—the sociology, economics, and politics of communication; and you will be asked to consider aspects which fall in the humanities—the history, philosophy, art, and literature of communication.[1]

This comprehensive aim recalls the time, early in the war, when the program in Communication and the Communication Arts was introduced at Teachers College. Colleagues asked, "Aren't you simply making communication synonymous with education?" The answer was "Yes," in the same sense that psychology is a part of every aspect of education, or that anthropology and sociology are. Communication is concerned with an aspect of human endeavor or a function of life which appears in every other endeavor, yet which has persistent recognizable traits that demand systematic study. If scope and pervasiveness were its only claim to consideration, the comprehensive study of communication could be only another short-lived, nebulous educational enthusiasm. With some advocates it may be nothing more. But serious workers in the field know that there is a significant center or core to the study.

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[1] *A College Program in the Communication Skills* (College of Liberal Arts, The State University of Iowa, Iowa City. Dubuque: William C. Brown Co., 1947), p. 7.

That is the phenomenon of symbolic behavior—man's ability to make and comprehend symbols of many kinds, gestural, verbal, pictorial. We have much still to learn about the processes by which men match symbols (or fail to match them) in the effort to establish communication and achieve understanding, and about the effect of various media on these processes. But we do know that the symbol is central in them all; that it can be systematically studied; and that there is already an important body of research to give substance and critical reference points.

CONTRIBUTIONS TO CORES

The instability of many attractive educational proposals for comprehensive "problem-solving" programs, "areas of living," and the like, seems due to the fact that range and importance of the problems or areas are clear but that there is often no identifiable center, no crux, no key process, to which a manageable number of critical disciplines can be applied by teachers and students. Modern students should gain experience with both kinds of study, of course, so that they can recognize whether a problem may be precisely studied at its heart, or in segments and samples, or in combinations of both.

Housing, for instance—so often cited in recommendations for core programs—can give an admirable picture of the number of factors involved today in securing satisfying shelter for modern families and single workers. But such study becomes baffling and frustrating for most teachers and students if carried beyond the orientation phase—not only because most of them cannot do much about their housing, but because of the complexity of economic, political, social, and aesthetic factors involved. They learn chiefly that they had better rely on experts on all but the artistic side, and that even there they may need to do some studying of the arts in order to gain satisfaction. It is good to learn such things. But it would seem to be better, in the first development of core programs, to deal with matters which can be immediately applied. Matters of communication and the communication arts, which are also recommended for modern core programs, are of this immediately applicable kind, whether they deal with the communication skills and attitudes of the individual, or with the conditions of the mass media of which he is a daily consumer. Hence, the new college communication skills programs may provide materials which will go farther toward realizing the aims of core programs than many of the projects developed specifically for such purpose. As the Iowa syllabus shows, communication skills programs point to a functionalizing of various humanities, social sciences, and natural sciences materials, made feasible because these broad fields have already provided central, manageable, critical considerations applicable to the various subfields constituting each larger field.

PROSPECTIVE SHIFTS

Up to this point we have been mainly considering present structures and flows. There are also predicted developments which lend their dynamics of expectation, or at least of uneasiness—like the excitement and uneasiness caused by rumors that city planning commissions intend to cut new highways through old neighborhoods. Among such predicted developments are atomic education (with urgent need of improved communication), prospects of English as a world language, and therapeutic semantics. All three are important, but it is not clear what their structures will be. Two proposals in *Education for* All *American Youth*, on the other hand, suggest both flow and structure, and may be more imminent than any of these others. One is the "Common Learnings" proposal, which is likely to affect the high school program more than older ideas of "correlation" because it suggests a substantial content as well as an integrating process. Its force is already apparent in some of the preliminary materials of the Curriculum Commission of the National Council of Teachers of English. The other is the proposal for a vast expansion of two-year community institutes at the junior college level. This may be the most imminent of all. The extent of the prospective flow is fairly well agreed upon by various experts—a 600 per cent expansion of junior colleges in ten years or thereabouts, so that in 1960, according to some estimates, our four-year colleges would have 2 million enrolled in their first two years (100 per cent over 1940 enrollments) and our junior colleges would have 2 million.[2]

But certain questions of structure are highly debatable. Will these junior colleges be two-year institutes, as more than 95 per cent of our junior colleges now are, or four-year institutions (grades 11, 12, 13, 14) as the editor of *The Junior College Journal* and others advocate? Whatever the choice, either structure seems to spell changes for English, in keeping with the dynamics affecting colleges generally.

To date, the junior college area has been a kind of dispersal area for the concentrated traffic coming out of our high school section—a network of small streets diverting some of the traffic from the main but inadequate college thoroughfare. The most crowded of these junior college streets are at present the streets nearest the college street, from which many travelers hope to return to the main college street halfway along its length. The most vigorous of these diverted flows, however, follows streets farther away—the way of the terminal junior college programs which do not aim at the highest buildings in the center of town, but at the factories and distributing houses and residential sections which circle the center. To improve the flow of traffic through this confused and congested neighborhood, should one main highway be cut through, or two? If one main highway, should it fork at a certain point or several points? Should the reconstruction also take in a section of the high school street?

ENGLISH, HUMANITIES, COMMUNICATION ARTS?

In two of our leading four-year junior colleges, Stephens and Pasadena, modern humanities programs were established as early as in our four-year liberal arts colleges, while the Communications course at Stephens anticipated our liberal arts college Communication Skills courses by a decade and more. Even though there are reasons to doubt that humanities programs will spread widely in either two-year or four-year junior colleges (since junior colleges lack the range of specialized upper division resources in the arts and philosophy needed for such courses), the new four-year units call for many revisions of the old senior high school and lower division college programs to avoid duplication.

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[2] Now increased in report of the President's Commission on Higher Education.

Two-year junior colleges and community institutes feel other sets of impulses and checks which will almost certainly affect English. Like the four-year colleges, many of the junior colleges in the West had Army or Navy units, and also are moving into the newer Communication Skills programs. But they are held back by the fact that their transfer students plan to go to a wide variety of colleges, including those which have not had Army and Navy units and have not felt the new dynamics. Often, therefore, the junior colleges are constrained to a highly conventional English. Where they are closely connected with the public school system, sometimes sharing buildings with high schools, they are likely also to reflect the dynamics or inertias of the high schools.

Yet many junior colleges are driving hard to give their two-year terminal students chief consideration, to prepare them for work and effective communication in their own communities. This means pointing their Communication Skills work in the direction indicated in the syllabus for the New York State Institutes of Applied Arts and Sciences:

> Most students will be in a position to apply their education directly to life and work in the community in which they are studying, rather than pursue it largely on the generalized level for some unspecified future application as students of many liberal arts colleges must do.[3]

The fact that to date the arts colleges have gone more vigorously into the new Communication Skills programs than most junior colleges should not be misinterpreted as meaning that such programs are more naturally adapted to four-year colleges than to two-year colleges, as in the case of the humanities. The development of Communication Skills courses in the four-year arts colleges is, in many respects, a kind of belated counterpart of the whole junior college movement. It breaks with the upper division English department's old preoccupation with reading and writing. Many perceptive professors of English in times past have felt that there should be a break between lower and upper division courses, or at least a sharp distinction of function, with a different staff for the freshman and sophomore composition courses. The differentiation has not been sharply made in most institutions, however, because freshman English courses have provided patronage and teaching fellowship support for advanced graduate students, and provided experience of sorts in lieu of professional studies in how to teach.

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[3] "General Education in Relation to Vocational-Technical Education in the New York State Institutes of Applied Arts and Sciences" (Albany: State Education Department, 1946), p. 4. (Mimeographed)

Yet the pressures today for better lower division teaching—and for more scholarly upper division work—are dislodging the practices of expediency. At the University of Chicago this resulted long ago in the theoretical separation of the four years into "junior college" and "senior college," and most recently into "The Four-Year College"—distinct from the upper divisions. At North Carolina, Iowa, Michigan State, Florida, and scores of other colleges, the distinction between the first two years (variously called the *junior*, *general*, or *basic* college) and the senior divisions has been increasingly sharp. Many of our teachers colleges also now have a "general education" junior-college unit open to all comers, capped by a professional school for a selected few. These trends suggest to many observers an ultimate separation of most of these junior division units from the upper division units—the upper division units then selecting their students carefully from a wide range of junior colleges rather than drawing their student body largely from students completing work in their own junior division.

If or when that happens, the junior division colleges formerly connected with upper division colleges and universities will simply be part of a vast system of junior colleges, each largely serving a local constituency. Since their tradition will be one of generalized communication skills, and since, like university laboratory high schools they may serve a restricted group of students, they will be less likely to enjoy the natural and logical development of the present Communication Skills courses in community junior colleges—as courses, that is, which will begin with effective communication in specific local communities where a majority of the junior college students expect soon to go to work. Hence, to the extent that they are parts of "generalized" colleges rather than community colleges in their own right, or to the extent that they remain in that tradition after becoming separate junior division colleges, the lower divisions of arts colleges are not the most natural "homes" for modern communication courses.

In short, as junior colleges and community institutes gain their independence, an important part of their dynamic is likely to be the community application. This application may, in turn, affect community high schools as much as the old college entrance requirements affected the high school program in English fifty years ago.

Does this mean that the community junior colleges will become aggressively provincial, and English in them become a study of the local dialect? Part of the time, yes—but only as a start. Pressures for world communication, as one of the necessities for survival in the Atomic Age, should keep the programs from becoming provincial. So should the comparison of other communities with one's own.

TEACHER EDUCATION

What do all these present and potential dynamics add up to? Or, putting the question another way, what do they spell for Teacher Education? Colleges concerned with the preparation of teachers must gauge all these dynamics in relation to one another and make decisions in the light of such dynamics.

Some of the meanings for Teacher Education are easy to see. The standard graduate school program in English must be very considerably modified if it is to serve the instructors of Communication Skills in the junior division or junior college. It seems unlikely that such modification will go much farther in most academic graduate English departments than graduate humanities syntheses as an extension of their comparative literature functions. But in some institutions there is already an extension of graduate communication programs—sometimes as a separate institute, sometimes as a development in the school of journalism, sometimes as a coordination of work in academic and professional education divisions, sometimes as a development largely within schools of education, particularly in those which have their own subject matter departments. If, as seems likely, the academic departments continue to have their hands more than full with graduate candidates who want to prepare for upper division work in English as a special field, then the preparation of Communication Skills instructors for the vastly expanding junior colleges must fall largely to departments and schools of education, as an extension of their work in the preparation of public high school teachers. The departments and schools of education must offer courses in the teaching of college Communication Skills which enlist the resources of many departments, much as the humanities and other broad fields did at the start—here involving speech, English, languages, art, music, psychology, anthropology, political science, sociology, and philosophy.

This has already been done in a preliminary way at Teachers College, and it is under way at New York University, Chicago, Denver, and elsewhere. It may well bring subject matter instructors and general education instructors together to an extent that has not been reached before, even in the development of broad programs in Foundations of Education. Social studies coordinations appeared in the teachers colleges almost as early as in the academic colleges because the high school social studies coordinations also developed early and created a demand for social studies teachers. General science coordinations developed fairly early, also, because of demands in the high schools. Humanities coordinations did not develop extensively in teachers colleges because there was little demand in the high schools. But both high school and junior college trends now call increasingly not only for coordinations of the arts on their functional communication base, but for coordinations with many other fields. Hence, these dynamics apparent in the high schools and colleges may bring the teachers colleges notably nearer to the goals of coordination they have long advocated. Possibly these dynamics will merge with the "human relations" drive long apparent in the old Progressive Education Association, in the Yale Institute of Human Relations, and elsewhere, giving a needed center which has seemed often to be lacking in broad discussion of human relations. For a time, though, communication studies will probably have to maintain an identity of their own, at least until their own central concern with the symbolic process has been worked out.

If these are sound estimates of major forces—not only those forces working on English, but those working out from English—then developments in English in high schools and colleges in the next ten years will be of profound importance to everyone in colleges preparing teachers. The effects of the high school English teachers' enforced isolation have been far-reaching. The enforced new contacts of college English teachers promise to have equally far-reaching effects.

"No man is an island. . . ." No institution is either. Yet it is remarkable how insular each can seem at certain times, and how easy it is to forget that the currents around either a man or an institution are as much responsible for the insularity as anything in the character of either.

On the Teaching of the English Language

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NEWER approaches to language learning are based, not on doctrines of authoritarianism (long outmoded in other fields), but on the findings of linguistic scientists. Standard English is a dialect spoken natively by only 5 per cent of the American people. For the 95 per cent, the standard dialect is essentially a foreign language, which is to be acquired along with suitable manners and habits of dress as a hallmark of social prestige. Only when the fact of this motivation is faced, and other facts about language are known and applied, can our schools hope to give students linguistic security and control of standard English.

NEW approaches to language learning and teaching are developing out of the wealth of useful materials built up over a long period by modern linguistic science. These approaches are being applied today more in foreign language teaching, including English as a second language, than in the English instruction for students who speak the language natively. But many of the problems the students confront in mastering their own language are nearly identical with those that they encounter in learning a foreign language, and the techniques for solving the problems stem from the same source and are similar in application. A few teachers and students are discovering that the application of the scientific approaches in the field of the native language is exciting and rewarding in itself, to say nothing of the time it saves and the increased control and security the student acquires. By and large, however, the materials which linguistic science has made available and the implications of those materials for teaching the native language are as yet untouched in the schools.

There is space here to deal with only three of the English teacher's problems upon which linguistic science has thrown some light: (1) language as a part of experience; (2) the problem of dialect; and (3) the relation of the oral to the written language.

LANGUAGE AS A PART OF EXPERIENCE

Any real language teaching must be based on a recognition of the fact that the life of language is not the logic of the grammar book and the rules derived therefrom. The life of language is experience. Language is so closely tied to the behavior situations in which it is used that to abstract it from those situations is to make it lifeless and to come to false conclusions about its function and meanings, a danger which the experienced linguist is ever careful to avoid. As Fries expresses it,

> Our language is an essential part of our experience; it gets all its meaning from our experience, and it is in turn our tool to grasp and recognize experience. Every language is thus inextricably bound up with the whole life experience of the native users of that language.[1]

And just as the English language embodies the story of the experience of the English-speaking peoples through many centuries, so does an individual's dialect of English[2]—his particular way of speaking—embody the history of his own experience. The forms, patterns, and vocabulary that he uses reflect his social and economic level, his interests and activities, his vocations and his hobbies, his hopes, aspirations, ideals, his family life, his religion, and his politics. To increase one's vocabulary is not to look up more words in more dictionaries, but to increase the range of one's experience. To change the grammatical forms and patterns of one's dialect is not to learn more rules and to fill in more blanks in more workbooks, but to live in the situations in which the desired forms and patterns are the convention.

But while language is an integral part of most of the behavior situations in which we find ourselves, it cannot substitute for those situations; it can only call them to mind. If it were a complete substitute, we could live our lives among our books and within the sound of the voice on the radio and miss little of reality. The printed page and the voice on the radio have meaning for us only in so far as the words they use are attached to situations which we have already known. The language of a book has the power to rearrange our previous experiences into new patterns and figures and thus to extend our grasp of reality. So accustomed do we become eventually to this process that frequently we tend, unconsciously perhaps, to regard language itself as new and total experience. At least in our older approaches to learning and to teaching, we seemed to assume, as Bloomfield points out, that the student needed little more than language to open up to him all that he needed to know.

> Whoever is accustomed to distinguish between linguistic and non-linguistic behavior, will agree with the criticism that our schools deal too much with the former, drilling the child in speech-response phases of arithmetic, geography, or history, and neglecting to train him in behavior toward his actual environment.[3]

Of all the subjects in the curriculum, language can be least effectively taught and learned away from the behavior situations which give it life and meaning. To separate language from its vital function for the purposes of mastering it is something like trying to define a thing in terms of itself: "A rose is a rose is a rose." For some there may be an intellectual or aesthetic satisfaction in the exercise, but it has little practical value, and there is no place for it in our schools. The primary function of language is not, as we have so often been told, the expression of thought, feeling, and emotion, important as such expression may be. Its primary function is to serve as the connecting link between the members of a social organism, the speech-community. It is our means of cooperation and interaction with others of our group.[4] To lose sight of this primary function of language for a single moment in the school is to make the study sterile.

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[1] Charles C. Fries, *Teaching and Learning English as a Foreign Language*, p. 57. University of Michigan Press, Ann Arbor, 1945.

[2] The word *dialect* is used in this article to mean simply a form of the language peculiar to an individual, a group, a region, or a social class. Used thus, it is in no sense a term of derogation.

[3] Leonard Bloomfield, *Language* (New York: Henry Holt and Company, 1933), p. 499.

In the schools, therefore, an English language class in which language is talked about rather than used is a complete anomaly, if we are serious about the business of increasing the student's mastery and control of his means of communication. Even the class which provides oral and written practice is largely a waste of time unless the material of the practice is an integral part of the student's life, unless the practice itself actually serves as the means of interaction between the speaker and writer and the people with whom he lives and plays and works.

SOME ILLUSTRATIONS

Many teachers are aware of the need to tie the materials of the English class more closely to the lives of the students. One such attempt which I observed recently in a high school English class got off to a promising start, but bogged down in the middle because the teacher, with the best intentions in the world, changed the situation from one of reality to one of make-believe. The students, who were juniors, were obviously much concerned with the approaching junior party. They were discussing it when they entered the classroom, and the teacher, taking her cue from them, simply joined in the conversation. The students wanted to have a dance in the gymnasium; the faculty wanted them to have some sort of entertainment in the auditorium with no dancing. There was to be a meeting of the junior class officers with a faculty committee the following week to settle the matter. The officers themselves were all members of this particular English class. It was evident that both the faculty and the class had cogent arguments, and that the officers needed briefing. At this point, the teacher said, "Let's pretend that the faculty committee is sitting up here at the front, and let's have the officers present their arguments." The students were willing, but for them the situation had lost its reality. The officers attempted their presentations to the imagined faculty. The life was gone from their language and the logic from their arguments. The teacher then tried to remedy the situation by having a few members of the class represent the faculty. This was even worse, because now all attention was centered on how well the actors were portraying the faculty. The class ended on a note of high good humor, but the observer could not help feeling that the class and its officers had learned little during the hour about presenting their case. For students of high school age the make-believe situation did not represent reality. At least more real to them would have been an actual briefing of what the officers were to say to the faculty, with the English class acting as a committee of the whole or in sub-committees to help with the briefing. A later rehearsal of those briefs by the officers would have had the reality of a rehearsal, whereas the make-believe meeting had no reality at all.

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[4] *Ibid.* pp. [illegible]1-41.

An attempt in another high school to relate the English language work of a junior class to the real concerns and needs of the students appeared more successful. The subject of the work was far less promising; as a matter of fact, it was actually a sad comment on the school curriculum. The teacher's problem had been to teach written composition. She had tried, so she told me, everything she could think of to get the students interested in writing and to get them to apply throughout their school work what they learned in the English class. And she had thought of a good deal—letter writing, written reports of class trips to interesting places, class diaries, a journal, a news-sheet, radio scripts, accounts of hobbies and movies, reviews of favorite books. The students were eager to talk about these things, but they did not want to write about them. And though they did write and were corrected, rewrote, and improved a little, other teachers complained that the students could not even write decent examination papers. It finally dawned on the English teacher that since it was the practice of the school to give essay-type examinations in nearly all subjects, the one thing the students ever wrote that was a vital part of their lives was examinations. She got them to analyze their own writing needs, and they themselves suggested that the examination was their real and pressing need. So they went to work. The students in committees interviewed their other teachers and collected statements on what constituted a "well-written examination" as well as lists of examination questions of various types. Then they analyzed the material collected and found that there were on the whole only three types of questions: thought, problem, and fact; that "well-written" included everything from handwriting, spelling, punctuation, and margins to "writing to the point and not all around it." Space prohibits a complete description of the procedures the class followed in learning to write examination papers and of the cooperation of other teachers. But on the two successive days when I visited that class, it operated like an English teacher's dream of animated, constructive work in written composition. The success of the experiment was amply attested by other teachers, who reported a genuine improvement not alone in the form of the examinations but in the content as well. Whatever one may feel about a school situation that provides no more important reason for writing than the written examination, the fact is that language is so completely attached to the behavior situation in which it operates—in this case studies and examinations—that language learning can take place only in a real situation, no matter what the situation may be.

While "learning is doing" and "education is experience" have long been fundamental principles for forward-looking teachers, it is disheartening to discover that even in the most enlightened school programs much of the English language work is still carried on as a thing quite apart from need, experience, and reality. We must recognize that language is part of behavior, and that, except for purposes of scientific analysis, it cannot be separated from human experience. We must recognize as we plan our school programs that our language work lies horizontally across our students' lives, in and out of school. It cannot be shut vertically within an ivory tower.

THE PROBLEM OF DIALECT

While the larger problems of effective communication are more the concern of the schools than ever before, Dora V. Smith observes that there is still a great deal of time centered purely on matters of language form and the acceptability of particular words and expressions.

> More time is being spent in the high school English classes of America today upon grammar and usage than upon any other single phase of instruction. Daily checking of what was going on in classrooms from Seattle to Richmond, Virginia, and from Los Angeles to Cranston, Rhode Island, established that fact in 1932. It is further substantiated by similar data from daily visitation in fifty representative towns in New York State in 1936[5].

Why do we spend so much time on grammar and usage? A report of The Modern Language Association points to certain strong pressures:

> "English" as a subject of study in the schools has had for many years the unanimous support of both the general public and education authorities. Even today with the present tendency to replace all separate "subjects" as such with a study of the so-called "larger areas of human activity," the Educational Policies Commission still insists that "A mastery of the various arts of using one's own language is the most universal of all educational objectives."[6]

This support for teaching the use of the mother tongue seems to rest upon the general conviction that the ability to use "good English" is "not only the most important asset of the ambitious but also an obligation of every good citizen."[7]

> Since every citizen of a democracy should be able and willing to contribute from his experience and his beliefs to the solution of the common problems of all, it is clear that every citizen should be able to write a simple, straightforward statement in clear, cogent, and legible English.[8]

Long have we in our national life

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[5] Dora V. Smith, "English Grammar Again." *English Journal*, XXVII, 1938, pp. 647-48.

[6] *Language Study in American Education*, p. 23. Commission on Trends in Education of The Modern Language Association of America, New York, 1940.

[7] *Ibid.*, p. 24.

[8] *The Purposes of Education in American Democracy* (National Education Association of the United States and the American Association of School Administrators, Washington, D. C., 1938), p. 53, as cited in *Language Study in American Education*, p. 24.

adhered to the principle that no individual in his attempts to rise to the highest positions should be disqualified by artificial restraints. Our people have been devoted to education because education has furnished the most important tool of social advancement. Our public schools have therefore held to the ideal that every boy and girl should be so equipped that he shall not be handicapped in his struggle for social progress and recognition and that he may rise to the highest positions. In the matter of the English language it is clear that anyone who cannot use the language habits in which the major affairs of the country are conducted, would have a serious handicap. The schools, therefore, have assumed the burden of training every boy and girl, no matter what his original social background and native speech, to use this "standard" English.[9]

The support of the long training in the native language is also based upon the other fairly general beliefs that standard English is more intelligible than non-standard; that it is more beautiful in sound, pattern, and form; that it is the language of literature. Sometimes those long years of study are defended simply on the basis that standard English is correct and that non-standard is not.

By means of irrefutable evidence, linguistic science indicates that the only valid reason for teaching the standard English dialect is to provide a necessary part of a person's equipment for social advancement and recognition. All other reasons, even that of citizenship, break down before an examination of the facts. One has only to observe the political activities about him to recognize that the precisions of a man's grammar and the elegance of his pronunciation have little to do with the success of most political leaders, or with the capacity of constituents to make their wants and opinions known to government agents and officials. The Congressman is in no danger of misunderstanding his farmer constituents' plea because of grammar forms. Nor is the precinct leader confusing to his political charges because he breaks the rules of standard English when he says, "There's an honest graft and I'm an example of how it works. I might sum up the whole thing by sayin', I seen my opportunities and I took 'em." [10] As long as "good" and "bad" English are mutually intelligible—and they are—community interaction and cooperation are not impeded by particular grammar forms. "I ain't gonna vote fer that man agin" and "I shan't vote for that man again" seem to be equally clear and definite. While the power of the language of Churchill and Roosevelt was certainly undeniable it was not the quality of their diction nor the nicety of their grammar that won them their particular political following.

Standard English is no more intelligible in its grammatical structure than non-standard except to the native speakers of it. "I ain't got none" is probably more readily intelligible to the non-standard speaker and more definitely negative than "I haven't any." Intelligibility is a matter of custom and familiarity, not a matter of the absolute, in dialect as in language. One would not think of comparing the relative intelligibility of French and English, for example, except in terms of native speakers of the languages.

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[9] *Language Study in American Education*, p. 27.

[10] W. R. Riordan, *Plunkett of Tammany Hall* (New York: McClure, Phillips and Company, 1905), p. 3.

As with intelligibility, so with the aesthetics of language. Sounds which are beautiful to the English ear are distasteful to the Spanish, and vice versa. On the dialect level, however, beauty is related to prestige more than to custom and familiarity. Certain regional American dialects, for example, are considered by some speakers to be more pleasing or more beautiful than others. But it is interesting to observe that the preferred dialects belong to areas of recognized cultural and social prestige. As a matter of fact, on the basis of vowel sequence and alliteration, the student of the aesthetics of sound could make quite a good case for the superior quality of the non-standard "I don't want none nohow." It is true, of course, that speakers of the standard dialect usually have a richer vocabulary than speakers of the non-standard. This is a matter of the speakers' experience, however, rather than of anything peculiar to the dialect. Every English teacher has had the unhappy experience of reading a mechanically and grammatically perfect composition that was meager in vocabulary and thought, and the equally unhappy experience of coming across an exciting piece of writing, rich in vocabulary and concept, that was nonetheless a "failing" piece of work because of errors in mechanics and grammar.

According to the observable facts, the argument that we should teach "good English" because it is the language of great literature is also hollow. What English teacher has not taught on one day the distinction of *between* and *among*, for example, only to have a student on the next day ask about such a quotation as the following?

> . . . language cannot be anything but an affair of convention, and there is no necessary connection *between* idea, word, and reality.[11]

To argue that we should teach "good English" because it is the only "correct" form of the language is to raise the whole question of our criteria for measuring "good English."[12] Although today we generally give lip service to *usage* as the criterion, we still revert to authorities such as the dictionaries, grammar books, and handbooks to establish "good usage" for us rather than to the usage of the "best educated" themselves. One frequently hears a comment such as the following: "Even the best speakers *make the mistake* of splitting infinitives." Many handbooks and grammar books written today recognize the fact that there are structural changes in the English language that are tearing the infinitive apart and so omit or soften their proscriptions against it. But the fact remains that until a *recognized authority* (a text or handbook) softens the proscription, most native speakers of even the standard dialect do not feel confident to judge for themselves on the basis of the observable evidence of their own ears and eyes.

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[11] John Locke, *Thoughts on Education*, 1693. As cited in *The Cambridge History of English Literature*, Vol. XIV, p. 442.

[12] For a complete development of this matter of the criteria of "good English" see Charles C. Fries, *The Teaching of the English Language*. New York: Thomas Nelson and Sons, 1927.

Our dependence upon authority in the field of language is astonishing in view of the fact that other branches of study and other areas of human behavior discarded authoritarianism as a guiding principle to knowledge and action at least one hundred and fifty years ago. Even literary criticism, one of the last strongholds of authoritarianism, has been free of the shackles for over a century. For example, in the eighteenth century the great plays of Shakespeare were classified by the rank and file of literary critics as "bad because they broke the rules" of good drama. In the early part of the nineteenth century, Shakespeare's plays were judged "good although they broke the rules." Still later the rules were discarded altogether as measures of good and bad drama, and the plays were judged on other bases. Today there are "rules" for good theater, but those rules derive from observation of effective drama and not from authority. In matters of language, we have not generally reached the stage of the nineteenth century Shakespearean criticism. We do not yet say, "The language is good although it breaks the rules"; we still say, "The language is bad because it breaks the rules." We are far from saying what irrefutable evidence of linguistic science indicates: "The language is good because it is the means of effective communication in situations in which it is used."

At first glance, the evidence of linguistic science is generally interpreted to mean that anything goes in the way of grammar at any time. Nothing could be farther from the truth. The linguistic scientist probably realizes far better than anyone the extreme delicacy of the social adjustments that depend upon language forms.[13] By no means is he saying that the schools are now to recognize "He ain't got any" as standard English. What he is saying is that a man loses his social position when he says "He ain't got any" unless he employs the special intonation that indicates he is merely borrowing the form for some special effect, just as he might also borrow a French phrase for a special effect. The linguist is also saying that a man does *not* lose his social position when he splits an infinitive, any more than Shakespeare lost his stature as a great dramatist because he broke the authoritarian rules. Had Shakespeare broken the *real* rules of drama we would not know his name today. If a speaker breaks the *real* rules of the English language, we cannot understand him at all. Linguistic science tells us, and we can check the validity of the evidence through our own objective observation, that language has infinite variety; that even within the standard dialect there is variety of form and grammatical pattern; that the dialect of any language recognized as standard is that form of the language which has been the native dialect of the group of people who through some accident of history have become the prestige group;[14] that the standard language is not a matter of intrinsic "correctness" nor of intelligibility, nor of beauty, nor of the literature, but a matter of social prestige—"correctness" in a social sense. Those who aspire to social recognition must acquire the language habits of the prestige class along with other things—manners, dress, attitudes, even vocations.[15] We cannot even claim that standard English is necessary for vocational success or advancement because only those professions which have traditionally been the prerogative of the privileged groups actually require of the practitioner the ability to use the standard dialect.

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[13] See, for example, the chapter entitled "The Use of Language," in Bloomfield, *op. cit.*, pp. 21-41.

Such talk as this about prestige groups and privileged classes is of course wholly unpalatable to a people long committed to a form of political democracy and to ideals of social equality. Our first reaction to the evidence that good English is largely a matter of social prestige is to reject the whole business as offensive snobbery. The very strength of our reaction does credit to the sincerity of our belief in the ideal of social equality. Our undiminishing efforts to teach the standard dialect to all our people is in itself evidence that we really do believe in equal opportunity for all. Our attempts, however, to justify that effort on nearly every ground except that of social prestige blind us to the essential nature of the job. As a consequence, we spend far more time on the task than is necessary; we employ materials that do not even present the facts of the language; and we induce linguistic timidity in the very children whom we wish to help. The following quotations, from only two sources, are typical of what the linguist has to say on the subject.

> The doctrine of our grammarians has had very little effect in the way of banishing or establishing specific speech forms, but it has set up among literate people the notion that forms which one has not heard may be "better" than those which one actually hears and speaks. The only danger that threatens the native speaker of standard English is artificiality: if he is snobbish, priggish, or timid, he may fill his speech (at least, when he is on good behavior) with spelling-pronunciations and grotesque "correct" forms. . . . For the native speaker of sub-standard . . . English, the acquisition of standard English is a real problem, akin to that of speaking a foreign language. To be told that one's habits are due to "ignorance" or "carelessness" and are "not English," is by no means helpful. Our schools sin greatly in this regard. . . . The unequal distribution of privilege which injured him in childhood, is a fault of the society in which he lives. Without embarrassment, he should try to substitute standard forms which he knows from actual hearing, for those which he knows to be sub-standard. . . .
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> In view of our schools' concentration on verbal discipline, it is surprising to see that they are utterly benighted in linguistic matters. . . .
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> Our unfortunate attitude toward matters of standard and non-standard speech ("correct English") is largely kept up by our schools. Their attitude is authori-

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[14] For a brief account of the history of the standard dialect of English, see Charles C. Fries, *American English Grammar*, pp. 11-13. New York: D. Appleton-Century Company, 1940.

[15] For a discussion of the relationship between language patterns and social prestige, see Bloomfield, *op. cit.*, p. 48.

> tarian; fanciful dogmas as to what is "good English" are handed down by educational authorities and individual teachers who are utterly ignorant of what is involved—dogmas such as the *shall*-and-*will* rules or the alleged "incorrectness" of well-established locutions (*I've got it*) or constructions (*the house he lived in*). Meanwhile the differences between standard and non-standard forms (such as *I saw it: I seen it*) are made the subject not so much of rational drill as of preachment about "ignorance," "carelessness," and "bad associations." All of this, moreover, set in a background of pseudo-grammatical doctrine. . . .[16]

> The world of modern linguistic science still differs tremendously from the linguistic world of the English classroom in the schools. . . . In the schools are hosts of excellent teachers, with high ideals, devoted to the best interests of their pupils. In the teaching of English, even in our times, these teachers are still giving more time to a study of grammar and usage than to almost any other aspect of English. Unfortunately, from the point of view of modern linguistic science, much of this work is not only wasted time but harmful practice, as well. It is wasted time because it employs methods and materials that could not possibly attain the ends desired, no matter how much time was given to English. It is harmful practice because the habits set up and the views inculcated turn the students away from the only source of real knowledge—the actual language of the people about them. Our students are practically never given the tools of observation and analysis necessary to the use of these resources.[17]

If we are convinced, as most parents and teachers seem to be, that we must teach the standard dialect to all people to provide equality of opportunity, we must know the exact nature of the job. Linguistic science points up the fact that whatever language a man has learned at home is his native dialect. When the schools teach the standard dialect, therefore, they are teaching a dialect that is native only to those children whose families speak that dialect. To all others, the standard dialect is foreign. It is as hard for the speaker of a non-standard dialect to learn all the forms, patterns, and vocabulary of the standard dialect which do not coincide with his native dialect as it is for the native speaker of English to use the forms, patterns, and vocabulary of French correctly and without slipping.[18] Furthermore, to expect a child to use at home a foreign dialect which he learns at school is roughly equivalent to expecting the English-speaking student of French to use French in his day-to-day intercourse with his family. While the latter is obviously impossible on the grounds of intelligibility, the former is at least ill-advised on the grounds of acceptable social behavior. We could well take a lesson from Switzerland in this matter of the attitude toward the domestic versus the public dialect or language: even the upperclass Swiss regards the domestic dialect as the normal means of communication with his family and neighbors. He uses the public or standard dialect only when the situation in which he finds himself calls for it.[19]

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[16] Bloomfield, *op. cit.*, pp. 498-500.

[17] Charles C. Fries, "Implications of Modern Linguistic Science." *College English*, VIII, 6, March, 1947, pp. 314-20.

[18] It is equally difficult for the native speaker of standard English to learn to use the non-standard without sounding affected or "phony" to the native speaker of the non-standard.

It has been estimated that in America only about 5 per cent of the school population, including the teachers, speak the standard dialect as a native language.[20] The colossal burden which the schools have undertaken, to teach 95 per cent of the people a foreign dialect, is not lightened by the tradition which makes us operate on a single standard of correctness for all communication. If we really believe that better communication is the major purpose of English language teaching, then we should strive to make our students alive to the *variety* in language. We should help them to recognize what everyone unconsciously acts upon: that language varies according to the situation in which it is used. The only "correctness" there is in language is dictated by the situation. "Bi-dialectualism" should be the goal toward which we lead the non-standard speaker. The circumstances of his life, not the edicts of the English teacher, will take care of his losing one or the other of the dialects or of his keeping both.

Nor is our burden lightened by our persistent belief that the study of language analysis—of functional, formal, or remedial grammar—will result in the *habitual use* of the standard dialect. Many of us have had the experience of learning the grammar of a foreign language, of being able to recite its conjugations and its declensions, of learning to read it and perhaps to write it a little, all without achieving any *habitual control* over its forms and patterns when we wanted to speak it. In some centers foreign-language teaching has moved to remedy this condition by setting up endless varieties of meaningful situations in which the same grammatical form is required again and again, until the learner responds automatically with the desired form without having to think painfully through a grammar rule and its application.[21] The student is taught the grammar rule as a guide to further observation of the language, but no dependence whatsoever is placed on that rule as a means to language mastery. The linguist's advice to the learner of a foreign language is equally good for the learner of a foreign dialect of the native language: "Remember always that a language is what the speakers do and not what someone thinks they ought to do. Practice everything until it becomes second nature."[22]

The written exercise or "blank-filler" does not lead to the type of automatic oral control that is "second nature." For most of us writing is a far more conscious process than speech; furthermore, when we write we have the time to revise and to correct. The written exercise which requires us to select "correct" forms and to revise "incorrect" expressions probably does train us to revise and correct our writing on a highly conscious level, but it in no way trains our organs of speech to immediate, automatic, and "correct" responses. On the other hand, automatic oral control does induce the "correct" written form in so far as the oral and the written forms of the language have equivalent forms and patterns.

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[19] Bloomfield, *op. cit.*, p. 52.

[20] W. W. Charters, in his book *Teaching the Common School Branches*, as cited by Charles C. Fries, "The Grammar of American English in a Language Program," *The English Journal*, XXX, 3, March, 1941, p. 196.

[21] See, for example, the pattern practice exercises in *A Syllabus for English Through Practice* (Bureau of Publications, Teachers College 1947), a text for teaching English as a foreign language.

[22] Leonard Bloomfield, *Outline Guide for the Practical Study of Foreign Languages*, p. 10. Linguistic Society of America, Baltimore, 1942.

RELATION OF ORAL TO WRITTEN LANGUAGE

According to the linguist, "writing is a secondary visual representation of speech" of comparatively recent invention.[23]

> It has been in use for any considerable length of time in only a few speech communities, and even in those, it has been confined, until quite recently, to a very few persons.[24]

> A few modern languages, such as Spanish, Finnish, Bohemian, have systems of writing that correspond adequately to the sounds of the language. But most languages that have a system of writing have inadequate written representation.

> This inadequacy . . . is due largely to the conservatism of the people who write. . . . When the art of writing becomes well established in a comunity, not only the spellings of words, but even lexical and grammatical forms become conventional for written records. In this way, a *literary dialect* may become established and obligatory for written records, regardless of the writer's actual dialect.[25]

Present-day English is among those languages that have an inadequate system of writing. Although alphabetic in principle, our present spelling reflects the sound system of a very much older form of the language. Any good system of alphabetic writing requires a ratio of one-to-one between sound and spelling. Present-day English has the unfortunate ratio of an infinite number of sounds to an infinite number of spellings. In the following list of words, there are, in my dialect, six vowel sounds represented by the alphabetic letter *a* and more or less than six if one bases the count upon other dialects of American English:[26]

ale
ask
father
tall
many
arm
nap
take
water

In the following list there is, in my dialect, only one vowel sound represented by six different spellings:

taut
dawn
balk
sought
frost
broad

This lack of correspondence between sound and spelling in English takes an enormous toll in labor and time of English-speaking teachers and students. Spanish- or Finnish-speaking children, for example, learn to read, write, and spell with a quarter of the effort and time, and at an earlier age. The solution of the problem—

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[23] Bernard Bloch and George L. Trager, *Outline of Linguistic Analysis*, p. 6. Linguistic Society of America, Baltimore, 1942.

[24] Bloomfield, *Language*, p. 282.

[25] *Ibid.*, pp. 291-92.

[26] These lists are from Albert H. Marckwardt, *Introduction to the English Language* (New York: Oxford University Press, 1942), p. 6.

. . . has been indefinitely postponed by our educators' ignorance of the relation of writing to speech. Nothing could be more discouraging than to read . . . treatises on methods of teaching children to read. . . . The primers and first reading books which embody these doctrines, present graphic forms in a mere hodgepodge, with no rational progression. At one extreme, there is the metaphysical doctrine which sets out to connect the graphic symbols directly with "thoughts" or "ideas" as though these symbols were correlated with objects and situations and not with speech sounds. At the other extreme, are the so-called "phonic" methods, which confuse learning to read and write with learning to speak, and set out to train the child in the production of sounds—an undertaking complicated by the crassest ignorance of elementary phonetics.[27]

The spelling difficulty definitely delays our elementary education, and is a constant source of irritation to adults. In addition to the spelling problem of written English, there is the convention of the literary dialect. The writer's natural impulse, after he knows the barest mechanics of the art of writing, is to transfer his speech patterns to paper. But even if he is a native speaker of the standard dialect, he is immediately beset with troubles. Utterances that seem perfectly acceptable in his speech when he converses with his teacher become "incorrect," "awkward," "not clear," "incomplete," "dangling," or "misplaced" when he writes. Frequently he becomes confused, the more so when he is not helped to the realization of two facts: first, English has really developed a literary dialect that is a matter of convention and tradition rather than of absolute correctness; and second, the system of recording does not include all the meaningful elements of speech such as gesture, tone, pause. The writer must employ special and additional locutions if the written language is to communicate what he can do in a speech situation with a lift of the eyebrow, so to speak, or a drop of the tone. In speech, for example, he can indicate "subordination" with a tone pattern, but in writing he must employ a specialized set of "subordinating" connectives. In speech he frequently indicates modification by means of tone, but in writing the modifier must be in a certain position with relation to the modified element or the relationship is not clear.

There is as much difference between the standard literary dialect and the standard oral as there is between the standard oral and the non-standard. All three, however, are "correct" in the situations in which they are the convention. People who "talk like books" do not communicate with their hearers, in the larger sense of communication, any more than language written exactly in the forms, patterns, and vocabulary of speech can convey all that is necessary to a reader's understanding. Such is the arrangement of the social order that the speaker of the standard dialect feels no necessity for using the non-standard under any circumstances; but he would doubtless effect a closer communication with non-standard speakers, if he desired to do so, could he use their dialect as well as he expects them upon occasion to use his.

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[27] Bloomfield, *op. cit.*, p. 500.

A LANGUAGE PROGRAM

Unlike the negative approach which makes a student, from his earliest years to the end of his school days and afterward, feel self-conscious about his language because of his fear of making mistakes, the newer approaches to language learning would eliminate the self-consciousness by concentrating the student's attention on the exciting role of language as our means of interaction and coöperation. The student would learn through guided observation that language varies in time and in place, from occupation to occupation, from group to group, from oral to written, from individual to individual. He would be led to observe that the variation is as complex as the society in which he lives, and that as the connecting link between members of that society the language must always remain flexible. He would observe that there are conventions of language just as there are conventions of behavior, and that many of these conventions cannot be explained by means of logic or of history. Their origin lies beyond the dawn of our linguistic memory.

On the basis of his own observation of the facts of language usage, the student would learn to draw up generalizations. These generalizations would be his "rules." Having learned how to find the rules of language in the usage of the people who speak it, as any student of the living language must, he would be equipped for independent language learning far beyond what the schools can ever teach him.

If the student's powers of language observation are sharpened—not inhibited as they too often have been by the authoritarian approach—he may have a chance of coming to the realization for himself that if he wishes to do certain things he must use certain language patterns. He will have a readiness for learning the standard oral or the standard written or both that heretofore we have not always been able to develop in him.

A few teachers are now giving their students such guidance in language learning. These teachers are alert and sensitive to the infinite variety of the language, including the variety within the standard. They recognize that the standard oral is a foreign dialect for many of their students and that the literary dialect is new for all of them. They are aware of the findings of present-day linguistic science and the implications for teaching language.

The Teaching of Foreign Languages Since World War II

DANIEL P. GIRARD

ASSOCIATE PROFESSOR OF FRENCH, TEACHERS COLLEGE

WHAT is coming from the much publicized foreign language programs in the armed services? Professor Girard examines some of the current appraisals. "Now that some of the smoke has cleared away, what sort of fire was it, anyhow?" Apparently it generated a good deal of heat.

BY THE end of World War II, foreign languages and the technique for their teaching had received more publicity than any other phase of the education program set up by the armed services, although in actual numbers involved the area and language program was one of the smallest. Aware that we were fighting a global war and that millions of our soldiers abroad were coming in contact with many languages and civilizations, the public showed tremendous interest in foreign languages. Never before had there been such a demand for foreign language dictionaries, conversation manuals and grammars, for courses à la Berlitz and via recordings. Full-page advertisements were carried in large circulation dailies (by the *New York Times* and *Herald-Tribune*, particularly) urging readers to start immediately to learn foreign languages the "quick and easy" way. "If a baby can talk them, why not you?" was the catchy slogan used by a recording firm.

APPRAISALS OF WARTIME PROGRAMS

Two years have passed since V–J Day. Many of the soldiers have returned and are now studying in our colleges and universities. We have had time to appraise a little more thoroughly the armed services' contribution to our teaching of foreign languages. Now that some of the smoke has cleared away, what sort of fire was it, anyhow? Two recent studies point the way to clearer understanding of the armed services' foreign language and area programs and to their implications for our schools and colleges. One is Robert John Matthew's *Language and Area Studies in the Armed Services.*[1] The other is Paul F. Angiolillo's doctoral dissertation, *Armed Forces' Foreign Language Teaching, Critical Evaluation and Implications.*[2] Their evaluation and implications are sound and they are considerably in agreement. Matthew concludes, in part, that the programs of the armed services went far to establish: (1) the validity of the oral approach to language study for practical purposes; (2) the fruitfulness of concentration on the study of an area through language. He also points out that although the understanding and speaking of a foreign language is a beneficial and useful art, "any intensive and thorough understanding of foreign culture implies a reading knowledge of the language in which that culture finds expression, for chiefly there does one find the record of its realized ideals, its age-old traditions and its cherished aspirations."[3]

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[1] A study made for the Commission on Implications of the Armed Services' Educational Programs, American Council on Education, 744 Jackson Place, Washington, D. C., 1947.

[2] Published by S. F. Vanni, New York, 1947.

Angiolillo weighs carefully the pros and cons of the armed services' foreign language programs, the application of some of their best features to civilian teaching (reduction in class size, better students, greater length of study), but doubts the practicability of the informant and of the expense of a high proportion of contact hours in civilian education—some twenty per week if we are to approximate army conditions.

Both studies raise the ever-present problem of objectives. Should we in peacetime be limited to a strong emphasis on understanding and speaking, as in the army program, or should we include the other skills of reading and writing? It seems to me that no single one of the four skills or even any combination of two of these skills will give foreign language mastery. Do we know it if we can read and write it but not understand the spoken language? Do we know it if we feel ill at ease when we have to speak it? Of course not. Knowing a foreign language means ability to understand it when spoken, ability to speak it, and ability to read and write it. That is nothing new. Some of our better schools (both public and private) have been teaching that way for a generation. This multiple approach (hearing, speaking, reading, and writing) has been giving excellent results in the schools of Cleveland, Washington, D. C., New York City, and many other cities. But it requires well-prepared, dynamic teachers, more time than the average two-year high school exposure to a foreign language, and a fair degree of student selection. If the foreign language students are chosen on the basis of high I.Q.'s and good previous grades in English, as in Cleveland, then even within a two-year foreign language program considerable success is assured. But wherever students are not selected, or where the teachers are not hand-picked, the usual two-year foreign language program is bound to be very disappointing.

QUESTIONS OF TIME

Another problem raised by the Matthew and Angiolillo studies is the one of finding in our civilian education programs the time necessary for the intensive study of foreign languages. In the armed services, eighteen or more hours a week were not unusual. The trainees were devoting all of their waking hours to the concentrated, rapid acquisition of the foreign language. While high school and college students obviously have no such opportunity, steps have been taken since V–J Day to intensify foreign language courses. Such steps have been taken mostly at the college level, where language departments are experimenting with a program of eight or ten hours a week instead of the usual four or five for the beginners' course, with extra "laboratory" periods where the language is listened to by the individual students with auditory mechanical auxiliaries such as microphones, voice mirrors, soundscribers, and recordings. As early as September, 1944 the colleges began to experiment with the "new" method. Pennsylvania, Yale, Harvard, Indiana, and many other universities were introducing new techniques, according to a survey made by Benjamin Fine, educational editor for the *New York Times* (November 19, 1944).

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[3] Matthew, *op. cit.* pp. 165-66.

Typical of the intensive two-year foreign language college program as now taught are the following features. During the first year there are seven to ten contact hours per week, of which at least two are used as analysis periods and five or more as practice periods. For the second year the group has eight contact hours, four being used as analysis periods and four as practice periods. The analysis periods are devoted to explaining grammar and to presenting new material, the practice periods to practice on the material treated in the analysis classes. The analysis sections are limited to twenty-five students, the practice periods to ten. Because of the increased class hours, only two hours of home work are required per week for the first year and about four hours for the second year. All instruction is given by native or bilingual speakers. It is interesting to observe here that the language department we have in mind in this instance does not resort to phonograph recordings, inasmuch as native speakers are available for their practice sections.

During the two years, the oral approach is maintained throughout. But reading occupies an important part in the program, becoming more intensive as the student progresses, so that an extensive recognition vocabulary may be acquired in addition to what is learned in the conversation classes.[4]

Since 1944, many more of the large colleges have experimented with this type of course. A small college, however, complains about the difficulty of duplicating the size of army language classes because of the high cost of instruction for small groups. An experienced college teacher, Professor Clifford S. Parker of the University of New Hampshire, argues that to transform the University's traditional program in elementary classes (565 students) into a streamlined, concentrated program with extra drill sessions would mean eleven new instructors, or an expenditure of at least $22,000 more than the institution's present program of instruction in elementary languages provides for.[5]

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[4] Matthew, *op. cit.*, pp. 103-30; Angiolillo, *op. cit.*, pp. 377-403.

[5] Clifford S. Parker, *Intensive Language Instruction in the College Curriculum.* American Association of University Professors, *Bulletin*, Vol. 33, No. 2, p. 349. Summer 1947.

QUESTIONS OF LEVEL

Professor Parker offers an adaptation of the armed services intensive method. He suggests that such concentration of language instruction take place in the middle and at the top rather than at the beginning of our language program, because, he argues, only about one third of the first-year students (at the college level) will take a second year of language. Since the ASTP method is primarily for specialists and its most valuable feature is a large number of contact hours, let us have, he suggests, a partial imitation of that in the advanced classes, where students show more ability and interest. This raises interesting new problems since most of the adaptations of the army's methods have been made at the first-year college level.

At the high school level very little has as yet been done. A few experiments have taken place.[6] A recent one was carried on in New York City, where, at the invitation of the Commission on Implications, three experimental classes in French, German, and Spanish were taught parallel to three normal or control classes. All members of the classes were beginners. Students were not chosen on the basis of intelligence and prognostic tests, although many were honor students. The six classes met five days a week for one term. The teachers of the special classes were told to use the foreign language exclusively, their objective being to teach the pupils to speak it. Reading was not neglected, however; about two-fifths of the time was devoted to it.

The teachers reported that in their opinion such a course should be given only to students of higher than average intelligence or to students who had already studied one foreign language. It would not work for ordinary pupils. One teacher felt that this type of course belonged to the seventh and eighth year of the elementary school or junior high school, where classes of selected students could be kept small, and where there would be more time to teach properly. (This particular teacher said he had had to forego studying the required portion of the cultural syllabus entirely and to cover fewer lessons in grammar than were required in Term I.) He believed that the method had "very great intrinsic value, but that it cannot be given its due in a high school." He advocated this type of course on the elementary school level or on a laboratory basis in the high school *in addition to* regular class work. Other conclusions deduced from the experiment are well worth quoting. They were drawn up by the Director of the Foreign Languages for New York City public schools, Dr. Theodore Huebener:

> 1. With a resourceful, dynamic teacher, the intensive oral method can be used successfully even in beginner's classes on the secondary level.

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[6] See William G. Meyer, "Nutley High School's Plan of Language Teaching." *German Quarterly*, November, 1945.

Esther M. Eaton, "Can High School Modern Language Study Pay Dividends?" *Modern Language Journal*, January, 1946.

Stephen L. Pitcher, "Application of ASTP Experiment to Language Teaching in Secondary and Elementary Schools." *Hispania*, May, 1946.

2. However, unrelieved oral activities may prove burdensome to the teacher and monotonous to the pupil.

3. In view of the interrelation of the various phases of language, writing and reading cannot afford to be neglected.

4. Reading particularly proves most useful in providing the basis for oral activities and conversation.

5. To attain maximum effectiveness, special reading materials and conversation models must be supplied. The ordinary language textbook is not adequate.

6. Oral activities in the beginning are severely limited by lack of vocabulary and grammatical knowledge on the part of the pupil. True conversation cannot be engaged in until later.

7. Language facts must be learned and drilled. Then they can be used in conversation. This would point to the "laboratory" period which has been successfully used in some schools in the third year.

8. A purely oral approach would seem to be more natural with younger children, in the seventh and eighth grades.

9. The intensive oral method would be the most effective one to use in advanced grades in high school or in a specialized high school where a practical command of the language for vocational ends is the objective.

10. In the high school as now constituted, *conversation* cannot be accepted as a reasonable objective in foreign language instruction. For the large majority of students the foreign language is only another school subject. Their main interest may lie elsewhere and only a very small portion of them will ever put a language to practical use in travel, research, or correspondence. For them the broader cultural and educational values must remain paramount.

11. As far as the immediate objective is concerned, the aim of foreign-language teaching should be to equip the student, through daily practice in reading, writing, and speaking, with the absolutely necessary fundamentals of the language, so that he has a firm foundation on which to build if he is to make practical use of the language later in life.

12. If the intensive oral method of the armed forces is to be used with equal effectiveness in the schools, equally favorable conditions must be provided. Essentially these are: more time; smaller classes; laboratory periods; adequate materials; highly selected students; and motivation based solely on the utility of the subject. Since, however, the aim of the school must be basically cultural, and since the expensiveness of the intensive method of instruction would be totally unjustifiable in the case of the average student, this method would be the one to use only where the aim is utilitarian. That would be in a specialized high school with linguistically gifted students seeking to attain skill mastery for vocational competence.[7]

QUESTIONS FOR TEACHER EDUCATION

There is today a greater awareness than ever of the role of languages in the world. Men's thoughts and ideologies leap frontiers with incredible speed. Whether they deal with fact or propaganda they have to be translated into an understandable medium. They have to be communicated. While English is undoubtedly the language used by the greatest number of people on earth today, as a native tongue and as a second language, it stands to reason that English alone is not adequate; that hundreds of millions of the earth's inhabitants do not use English and have no ready access to it. Hence the need for acquaintance-

[7] Matthew, *op. cit.*, pp. 143-44.

ship with other tongues. What takes place at the United Nations sessions is illuminating in this respect. There are five official languages at the UN—Chinese, English, French, Russian, and Spanish—and two working languages into which all speeches are translated—English and French. English and French were accepted by a committee of linguistic experts meeting at UNESCO headquarters in Paris (June 30 to July 3, 1947) as the two universal auxiliary languages to be recommended to UNESCO for its basic educational program. Including these two, eight regional auxiliary languages were suggested: Russian, Arabic, Spanish, Hindustani, Chinese, Malay, and various dialects now in use.

Do our schools reflect this world awareness of this modern linguistic need? Partly. Some two million students (out of a total enrollment of more than seven million) take foreign languages in our public high schools. Almost half of those language students take Latin. The others are very unevenly divided among Spanish, French, German, and Italian. Students enrolled for the first two comprise probably 80 to 85 per cent of all modern foreign language students. At the secondary level there is no Chinese, Russian, Arabic, or Hindustani. At the college level we find about the same linguistic division, with less emphasis on Latin, more on German and the "new" languages—Russian particularly. Whether we consider foreign language study as strictly utilitarian or cultural, administrators should give it a proper place in the curriculum.

What are some of our most urgent problems? More careful and earlier selection of students, and accompanying that, greater concentration on one language with a view to laying a solid foundation leading to mastery. Two years or less than two hundred hours' exposure in the average high school course is not enough when average conditions of student selection and teaching prevail. Early selection is in order. We know that the ideal age for foreign-language study is between ten and twelve. If we delay this initial linguistic contact we do not get as much spontaneity, naturalness, imitative ability. Older students are more self-conscious about speaking and repeating. They want more "mature" material, which is not often available for beginners.

And, of course, we need more careful selection and preparation of teachers. When a teacher cannot speak the language with ease, the students have little chance to hear it properly; thus they will miss an important first half of the foreign-language learning process (the oral–aural phase).

For the past twenty years we at Teachers College have been trying to remedy this lack of oral ability by giving future teachers special classes in hearing and speaking and by conducting all of our classes (except methods) in the foreign language. We also have the problem of students who are not sufficiently prepared in what we call "civilization," something akin to the army area study. We offer courses to overcome this usual weakness. Wide variations in individual preparation, great differences between standards, inequalities of experience and achievement all create difficulties, not so much in maintaining ideals and standards as in applying them fairly and in closing the gaps. We know what we want our foreign language teachers to be, regardless of methods. We know that language study in itself is not enough, that to hear and speak, read and write a language is not sufficient. We know that language study should be related to a broad cultural perspective making for understanding, appreciation, tolerance.

Some of this perspective we believe we are achieving in the two basic common area courses given in conjunction with the English staff—namely, the Study of Language and the Reading and Criticism of Literature. Within our specialty, our teachers need greater and more judicious use of modern audio-visual aids (particularly recordings, movies, and radio programs) and more concentration on the living language. This greater emphasis on the oral aspects of language and a better utilization of audio-visual material were the two main features which the army foreign language programs stressed and which we can best adapt to our civilian training of foreign language teachers.

Hemisphere Reciprocity

RECORDED BY

VIRGINIA FRENCH *and* PHILIP SHUMAN*

INSTRUCTORS IN THE TEACHING OF ENGLISH AND FOREIGN LANGUAGES, TEACHERS COLLEGE

In two recorded round-table conversations Latin Americans and North Americans exchange views on the study of English south of the border and the study of Spanish in the United States, as observed by students and teachers of these languages.

I. Foreign Language Dynamics South of the Border: A Coffee-Hour Conversation

PARTICIPANTS: Mr. and Mrs. Alfredo Ghioldi (Argentina), Miss Celia Arias (Paraguay), Miss Angela Millán (Venezuela), Mrs. Cristina Figuerola (Cuba), Miss Virginia French, and Mr. Philip Shuman.

MISS FRENCH. Mr. Shuman and I are interested in your impressions of the foreign language situation in Latin America. Mr. Ghioldi, what has been happening to language in Argentina?

MR. GHIOLDI. The general situation in Argentina has changed greatly during the present decade. Until ten years ago, the general trend was to teach especially French because our general culture was based on French culture, but in the past few years the trend has been changing in order to include the teaching and learning of English in secondary schools, because the English language is so much more important to us now. During the last war, for instance, there was a very great interest in English. Movies and radio as well as magazines and U. S. newspapers have contributed to this new emphasis.

MR. SHUMAN. Is English compulsory in Argentina?

MR. GHIOLDI. In Argentina English is compulsory in high schools. Pupils can select French or English, but if a pupil starts with French, he has to study English later. If he studies English first, he has to study French afterward.

MISS FRENCH. How many years does a student study foreign languages in high schools?

MR. GHIOLDI. Three years for each language, three hours a week. That represents about 600 hours devoted to the study of French and English.

MR. SHUMAN. Have you observed any particular experiments in the teaching of English which have been successful in Argentina?

MR. GHIOLDI. Yes, several. I might

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* With the technical assistance of Mr. C. L. Forsdale.

mention especially one school in the suburbs of Buenos Aires. A group of pupils in rather poor economic circumstances were taught English by a specialized teacher, Mrs. Lopez-Arias, who developed a method for teaching the children only to speak English.

MISS FRENCH. The school was an elementary school?

MR. GHIOLDI. Yes, an elementary school. The pupils were about eleven or twelve years old.

MR. SHUMAN. And they didn't know any English before they began the experiment?

MR. GHIOLDI. Absolutely none before, and the content was taught—the class was taught—during a period of six months and no more than thirty minutes each day, three days a week. At the end of that period the pupils couldn't read English, but they could speak it very well and say all that they wanted to say.

MISS FRENCH. And I assume that these children were not selected on the basis of intelligence.

MR. GHIOLDI. Absolutely not. The only selection was, "Which of you want to study here a certain hour three days a week?" and that was it.

MR. SHUMAN. That is very interesting.... Mrs. Ghioldi?

MRS. GHIOLDI. I wanted to add that English is compulsory, too, in Argentina in the college and normal school for professors.

MISS FRENCH. How about Paraguay, Miss Arias?

MISS ARIAS. In Paraguay the student is free to choose the language he likes best. Since 1942 we could say that the teaching of French, Portuguese, Italian has disappeared with us because the students have a great desire to learn English. Paraguay is a bilingual country. We talk there Spanish and Guarani, an Indian language, and now there is a joke about English there. The people say, "Yes, Paraguay is a bilingual country, but English is one of the two languages now."

MISS FRENCH. Does that mean that elementary school children do not learn English at all?

MISS ARIAS. Only in secondary school do they begin to study foreign language.

MR. SHUMAN. Have you noticed any effect of the war on the teaching of English, or on the number of people who are interested in studying English?

MISS ARIAS. I think the interest has grown because of the war, or at least, during the war.

MISS MILLÁN. English has been increasing in Venezuela in the last years. For example, the normal school usually had a special professor for French. Now most of the students select English, and this is true not only in the secondary school but in some of the private schools. The increase has been so great that we have the American Club, and most of the students that are interested usually go in the afternoon and have tea with the American people, because we have in Venezuela the Instituto Americano, and most of the people from there are people from North America that teach English in the Institute. They have teas and meetings in which Venezuelan students and the American students get together and practice both languages. English is not compulsory in Venezuela. Recently the methods have been modernized so much that most of the secondary students are able to read English books.

MISS FRENCH. I am interested in your term *modernized*. Could you tell us how the methods have changed and how they have become modernized?

MISS MILLÁN. I mean that, before, the teacher really was not an English teacher. Now we have American natives and Venezuelan teachers who have been studying in the United States. Therefore, the language teaching has improved and we usually have the opportunity to practice English, too, because of the increase of North American people in Venezuela.

MR. SHUMAN. Does modernization include stress on the oral aspects of language?

MISS MILLÁN. The oral has been stressed very much in Venezuela. The movies have played a part in the modernizing of the language because all the movies of Venezuela are spoken in English, and we like to attend the movies. People are learning English in the schools, in the movies, at entertainments, and at parties.

MR. SHUMAN. Has the war been chiefly responsible for the stress on the oral approach?

MISS MILLÁN. I do not think so. The petroleum business in Venezuela has been the main cause. There has been a great increase of North American people going to Venezuela and Venezuelan people coming here.

MRS. GHIOLDI. I think business has increased the learning of English in Argentina; interest in American pictures has, too. Sometimes when the people hear American pictures in Spanish they protest because they want to hear the American pictures in English. The same thing happens to me. I like American pictures talking English.

MISS FRENCH. About the new emphasis on the oral approach: so many people from Latin America have been coming as visitors to the United States and finding that although they could read English very well they could not speak it. When they went back to their countries they either said or thought, "We must train our people so that they can converse in English. Let us have more oral English in our schools." Do you think this has influenced language teaching?

MR. GHIOLDI. Of course, and it will do so more and more.

MRS. FIGUEROLA. In Cuba, English is supposed to be compulsory in the primary school but it is never really enforced. The pupils come to high school and college with very little preparation in the language unless they are rich pupils and have come from schools in the States or have private teachers in their homes. I am a teacher in a government college in Havana. We give three years of English. The first year most of the pupils have very little knowledge of the language. But they are very much interested in the movies and in the comics. We get a lot of comics in Havana. That stimulates interest in English, and students learn

English very quickly. I am always very well satisfied with my third year of English in Havana. I do not think the war has affected the increase of English in Cuba except that since the war the price of sugar has gone up and there are very many people who have more money now and travel a great deal, so that when they come over here they want to be able to shop and go to the theaters and to the cabarets and understand the language. So many of them are taking English with private teachers now. But now that I think of it, there is an interesting result of the war: we have had a lot of refugees; many people from France, Germany, Poland, and Russia have come to Cuba, and some of them have made friendships there and that has stimulated Cuban people to learn their languages. So we have a Language Institute now in the University. That has two professors of Russian, two of Italian, one of German, one of English, one of Portuguese. And the school which has most pupils is the school of English.

MISS FRENCH. It is very interesting to hear that the influence of the war has taken a little different direction in Cuba from that in the United States—stimulated by the presence of European refugees.

MRS. FIGUEROLA. One of the significant things about those refugees is that they are not poor people. Most of them are very well-to-do people who have bought land and very nice houses. You can see that they intend to establish themselves there and remain in Cuba, and we really have found that they are very pleasant and likeable.

MISS FRENCH. Naturally, you want to be able to communicate with them in their own language. A few minutes ago we began to talk about recent changes in methods of teaching English. You yourself are a teacher of English, aren't you, Mrs. Figuerola?

MRS. FIGUEROLA. The Minister of Education, together with the University of Havana, has realized the need of better English teachers; and an Institute for English teachers only—we don't have that in any other language—has been inaugurated at the University of Havana with four years of English conversation, grammar, culture, history of the language, literature. We cover most of the literature of North America and England. Those are the teachers the government is selecting now for the new posts in the schools it creates.

MISS FRENCH. Mr. Ghioldi, haven't I heard you mention the training of English teachers in Argentina?

MR. GHIOLDI. We have professors of foreign languages in our country, especially in institutes for modern languages in Buenos Aires. We have, too, the normal school of modern languages and the institute of teachers of secondary education. In the first one, the requisites are three years of study of five hours a day; that is about 2700 hours. In the second one, 300 hours during three years, that is about 1500 hours. Both of them are very good intensive courses. At the beginning of the year we have approximately forty students aspiring to become teachers of English, and at the end of the year, because of the thoroughness of the work, only ten of the original forty remain. That is an index of the strenuousness of the program.

MISS FRENCH. Those who finish the course must be very well prepared.

MR. GHIOLDI. The teachers are good, but in our country the program is very, very firmly controlled by the authorities, and teachers have no freedom to go in other ways than in the way that the authorities have prepared. Unfortunately, the authorities stress the importance of reading and understanding of the more frequent words, rather than speaking the language. Many students end the period of study with a reading knowledge, especially of technical works, but they cannot speak the language.

MISS FRENCH. So far we have been mentioning new developments in the study of foreign languages without special reference to the literature of the language. What would you say about new emphasis in the study of literature? For example, in our schools here in the United States, emphasis used to be put chiefly on the literature of Spain; now there is more emphasis on Latin-American literature and Latin-American culture, isn't there, Mr. Shuman? Has a similar thing happened in your countries? Are students of English becoming better acquainted with North American Literature?

MISS ARIAS. That is true in Paraguay. Five years ago we studied British literature, but now we learn about American education and American poetry and politics.

MRS. FIGUEROLA. May I say, Miss French, that Ernest Hemingway did a lot in Havana to further the knowledge of English because he had a very pleasing personality and he lived almost a year and a half in Havana. We had him to lecture at the Lyceum, which is the most important of our feminine societies in Havana, and after two lectures by Hemingway every single person in the group bought all his books, read them with great interest and enthusiasm, and commented on them a long time.

II. Spanish Round Table

PARTICIPANTS: Mr. Philip Shuman, Mr. Lester Schweitzer, Mr. Nicholas Sallese, Mr. Raymond Baumrind, and Mr. Michael A. Russo.

MR. SHUMAN. We have come together to discuss the study of Spanish in terms of "hemisphere solidarity." We want to consider the past, and see if we can arrive at some conclusions in regard to future trends in Spanish. What are some of the factors that come into the whole picture of interest in Spanish?

MR. BAUMRIND. I believe originally we had perhaps an equal emphasis on Spain and on Latin America. I don't believe we ever had direct emphasis on Spain and nothing else, but I am quite certain that today we are looking chiefly toward Latin America.

MR. SALLESE. Do you believe that

that is so in all phases—in business, politics, culture?

MR. BAUMRIND. Yes, I think that we have come to accept the fact that Spain is no longer a world power and that in politics and all other phases we are now facing southward rather than to Europe, as far as Spanish is concerned.

MR. SALLESE. The reason I asked the question, Mr. Baumrind, is that I agree in general with what you said, but I believe that the transition has not been made, shall we say, from the cultural standpoint, from the point of literature.

MR. SCHWEITZER. But isn't the old cultural slant being deviated from at the present time also, because of our close relations with Latin America? We have a great market to the south of us and we are fully aware that a close tie between Latin America and North America will increase American business. Hasn't this taken primary emphasis in our language teaching, and in the teaching of the culture of the lands to the south of us, deviating from the teaching of the culture of Spain across the Atlantic.

MR. RUSSO. The chief place where Spain itself comes in is in the teaching of history, the period of exploration, the period of conquest, several hundred years back. That is Spanish rather than Hispanic-American. It is still important that we teach the culture of Spain at this point so that we know the background of men who came from Spain to what is now Hispanic America.

MR. SALLESE. We still have that problem, haven't we, today, of Latin Americans speaking Spanish with the so-called *seseo*, and of the Spaniards speaking the *ceceo* form? Don't educated Latin Americans still speak the way the Spaniard does—on the public platform and the like? This problem, of course, has not been settled, as has been brought out very well by Professor Navarro Tomás, the outstanding phonetician we have in America today.

MR. SHUMAN. I think we ought to qualify that statement that well-educated Latin Americans on the platform use the Spanish *ceceo*. Practice varies. But let's return to the question of business. Do you think that business provides chief motivation for the study of Spanish in our public school systems?

MR. SCHWEITZER. I believe it represents a certain center. However, it is not yet the all-dominating factor. Language still is a "cultural" study. The economic trend is there, however, and people are fully cognizant of the fact in both parts of the hemisphere.

MR. RUSSO. The study of Spanish for students who are taking commercial work has a definite advantage—probably more than French or German or Italian nowadays.

MR. BAUMRIND. I feel that this is the same "tool and culture" business that we have discussed in our methods courses in the teaching of Spanish. Is it a *tool* or a *culture* subject? It can be both. But no one forgets, here or elsewhere, that today South America is perhaps the richest business field in the world. Russia is not prepared to buy much, Europe is poor.

MR. SHUMAN. I think we could

couple this business incentive with the political incentive. You say that for business reasons we turn to South America, because of tremendous natural resources that have not yet been opened up. That is intimately tied up with the present world situation. Spanish was of interest to Americans for many years primarily for business reasons even before the first World War. In the late twenties we began to see increased political need.

MR. SALLESE. Do you mean hemispheric solidarity?

MR. SHUMAN. Hemispheric solidarity, a movement which was begun under Hoover and then continued and given tremendous impetus by Roosevelt and his Good Neighbor policy.

MR. SALLESE. I wonder what prompted the President's advisers, Hull and the rest of his cabinet, to institute the Good Neighbor policy, as we call it today. Was it because of business? In my opinion, politics and business go hand in hand. In looking over the business situation in Latin America we discover that the Latin Americans want to deal with us in every way they can. We find that many of our businesses have branch offices in Latin America. We must send experts in the language field to these different countries to represent American businesses.

MR. SHUMAN. Yes, but the number of Americans who could go to South America to enter the business world has always been limited. It is limited now. In any business relations with Latin America, native Latin Americans want a very limited number of North Americans taking part. They limit the number of North Americans who can come into the Shell Oil or Socony companies, or whatever company it happens to be in Latin America. Our interest should be in better preparing from the language and cultural standpoint the people who go South.

MR. BAUMRIND. Just what has been the effect of all this on the enrollment in Spanish in our schools?

MR. SCHWEITZER. The importance of Spanish as a language has unquestionably been increased because of our newly acquired south-of-the-border attitude. For the past ten or fifteen years there has been in the secondary schools of America and also in the colleges an increase in the enrollment in Spanish classes in practically every city in the country. In New York there has been an increase in Spanish in the years 1944 to 1947 when the other languages have either remained still or have dropped. At the present time in New York City there are nearly 58,000 students taking Spanish out of approximately 350,000 enrolled in the public schools where foreign languages are offered.

MR. SALLESE. Your figures hold true for the college study of Spanish. In Middlebury College, which I have attended, we had 250 students studying languages. More than 100 students were turned away. At St. Johns on Long Island, where I am teaching, we had a prewar enrollment of 100 to 150 students. Now we have more than 200—nine classes where normally we had five. When the Teaneck High School Adult Education Center first offered classes in Spanish a year ago, 25 to 30 students were enrolled. I understand this year there are 35 or 40, with more classes being instituted for next year's program.

MR. SHUMAN. In regard to the figures that Mr. Schweitzer gave for New York City, I think we might add a point. In today's *New York Times* and in the *New York Sun* of several days ago, enrollment figures were given for registration in languages in the New York City high schools. The gist of it was that there was a decrease in the registration in languages. But it should be pointed out that some drop in the registration in language courses is a natural result of the drop in the total registration of those schools where languages are offered. The drop in the language registration amounted to about 4.5 per cent, and I believe that the drop in total registration would correspond. Yet, as Mr. Sallese pointed out, there is a slight increase in the registration in Spanish throughout the country. The sampling that the publishing house of Crofts is just completing in some hundreds of colleges throughout the nation shows a very slight increase in registration in Spanish over what it was last year. The question should be asked, of course, whether this trend will continue.

MR. BAUMRIND. It might. The increase in the enrollment in Spanish as a voluntary rather than a required subject may mean more than we realize. Many colleges now say that two years of languages are sufficient—or do not require any languages at all. Hence, more students who do take languages are taking them because they like to.

MR. SALLESE. Are there any other factors?

MR. SHUMAN. The State Department has done a great deal to increase interest in the study of English in Latin America, and I daresay that the publicity that has been put out here in the United States in regard to the increase in the study of English in Latin America has had some effect on the interest in the study of Spanish in the United States. The Fulbright Act to send students abroad was passed about a year ago, but unfortunately has not yet been implemented. The Veterans Administration offers opportunity for study on the part of the veterans abroad. I think we five are all veterans. Two or three of us have taken advantage of the Veterans Administration opportunity to further our studies in Spanish. What can you tell us, Mr. Schweitzer, about your personal experiences?

MR. SCHWEITZER. This past summer, Mr. Baumrind and I went to Cuba. We spent seven weeks at the University of Havana. Approximately 150 others were down there studying Spanish and taking full advantage of the opportunity to learn the language in the true atmosphere of a Latin-American country.

MR. SHUMAN. Were many of them teachers?

MR. SCHWEITZER. I would say that 60 per cent were teachers and 40 per cent were students aspiring to be teachers.

MR. BAUMRIND. I was interested, too, in the effects back home, the effect of all this propaganda, the war, etc.

Aren't there other agencies in our own country which have furthered the teaching of Spanish? Hasn't the church done something, Mr. Sallese?

MR. SALLESE. Yes, I know the Catholic Church has. Many of the missionaries and priests who had missionary fields in India, China, and similar places, but could not visit these fields, turned toward Latin America and have been required to learn the Spanish language. I believe that also is true for Protestants.

MR. SHUMAN. I believe so. Right here in Teachers College we have an example of this in a candidate for the Master's degree in the Teaching of Spanish. The young lady referred to is perfecting herself in the use of the language and the knowledge of the culture of the Latin Americans because she intends to go back to Latin America with her husband, a Methodist minister, to continue their work in the mission field. Another factor is the influence that the motion pictures have had on Spanish.

MR. RUSSO. We have had a great number of pictures for American consumption dealing with Latin-American topics, lending glamor, interest, romance, intrigue to the study of Spanish that would really appeal to the students here in America. In addition to that we have the rise of popular Spanish Americans—Xavier Cugat, Andy Russell, and others who are singing in Spanish—and the tremendous popularity of Latin-American dances.

MR. SHUMAN. Don't forget our Spanish-American Rita Cansino Hayworth Welles!

MR. RUSSO. I couldn't. These things have all had an effect on these same American students.

MR. BAUMRIND. I would like to add another point. I feel that these agencies—the church, Hollywood, the press, the media of mass communication—may have had more effect upon the teaching and the learning of Spanish than the politics concerned. People don't bother to read the bills and the acts that go through Congress. They do come in contact with our theaters and movies and newspapers. We certainly have had a lot of publicity about the visit of President Truman to Mexico and Brazil and about President Aleman's coming to New York, to say nothing of publicity about various examples of outstanding leadership in world affairs. These things, I feel, have had influence upon people.

MR. SCHWEITZER. What do you think the effect of the war has been on hemisphere solidarity in the minds of everyday folk? What will our plan and purpose be from now on in regard to our neighbors to the south of us, and what will be the possible effect on the teaching of Spanish in the United States?

MR. SALLESE. Our soldiers, of course, have returned from various theaters of war and the different countries in Latin America in which we have established agencies, defense posts, and the like, and some are bringing back the true picture of Latin America which is so necessary in our teaching in the North.

MR. SCHWEITZER. Do you believe that North America and Latin America will stand together as one solid group from this time on?

MR. BAUMRIND. I hope so. If we must make a division into worlds, or if there are subparts, the Eastern and Western hemispheres could be two sections. But the United Nations must take it from there and weld it into one world—a total unit.

MR. SHUMAN. There is one other factor that we can bring in here—the factor of the tremendous impetus that can come from a change of opinion of the Latin Americans toward us, a change of opinion that can result from the fact that we are studying their language, their civilization. That could change Rodo's old picture of the Caliban of the North. If they could know that throughout the United States our secondary school children are learning their language and civilization, I believe they would be more likely to feel that we aren't chiefly almighty dollar seekers or ignorant snobs.

MR. BAUMRIND. True. In times past many Americans have said, "Well, let them learn English and come to us. We have what they want." Today we are turning it around and saying, "We will study Spanish and go to them."

MR. SALLESE. With the study of Spanish we will be less exposed to misunderstandings with the Latin-American countries. The study of Spanish gives us the expression of the life and character of these nations to the south of us, and in studying a foreign language, let us not forget that we can gain a fine ear for our own language. We perceive the versatility of our own English.

MR. SHUMAN. More important than the language skill are the attitudes that we can help students develop. Today our whole high school population, voters of the near future, need an attitude of good neighborliness and generosity based on knowledge that we are interdependent, that each nation has its important contribution to make to the whole hemisphere security program, whether that contribution be of a material or a cultural nature; whether it be in the realm of technology or the arts.

The Impact of Audio-Visual "Aids"

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A revolution in communication has taken place in the past thirty years. At present it is commonly institutionalized as "audio-visual aids." But teachers of English are beginning to see more than an "aids" significance for their work.

COMMUNICATION, like education, changes. In language, for example, what was right yesterday is stilted or obsolescent today. "It is I" is fast becoming a dictionary relic, giving ground to "It's me." As the customs of language change, so the techniques and devices of communication change. The teacher of fifty years ago had little but his voice and not very skillfully printed pages and pictures to carry his message. The teacher of today has access to a wealth of communication techniques. Yet the impact of the new techniques is still largely impending, except as the new media, by contrast, have made the printed page seem static to modern students.

Many present-day teachers use no communication techniques newer than those of their predecessors. This is no fault of the stage of development in communication. It is the result of myopic observation of the world about us, outdated values, and lethargy or fear. Of course many teachers have given attention to the newer means of communication, but their efforts have often been sporadic and dependent on too many purse strings and too many fixed notions. Where the newer techniques have been introduced they have generally been categorized as audio-visual aids, a significant development which will be discussed in detail later.

Part of our inability to see compelling reasons for introducing newer devices of communication into our classrooms stems from an incomplete evaluation of the communication changes which are being wrought in the modern world. We are in the midst of a revolution in communication. An examination of some of the implications of this revolution may sharpen our appreciation of the largely untapped potential to be found in auditory and visual means of communication in the classroom. It will also point up an obligation for teachers.

WINGS FOR COMMUNICATION

A century or so from now historians will describe the communication revolution of the twentieth century. They will tell of the momentous technical developments—motion pictures, radio, television, facsimile, air transportation, and improved techniques of graphic presentation and mass press. They will record that never before could symbols be transmitted with so little regard for time or space. Credit for these advances will go to Marconi, Edison, Armstrong, DeForest, and others who gave wings to communication. It is to be hoped that these historians will be able to record also that the great new devices helped unite the people of the world community. But one suspects that they will have to tell only the age-old tale of scientists presenting new techniques and educators wondering what to do with them.

We who are in the midst of this communication revolution recognize it in a very casual manner. We acknowledge it by listening to the radio and attending movies. We all regard television as here to stay, no longer a world's fair oddity. Yet the force of the revolution is only beginning to influence our behavior as teachers.

We recognize increasingly that communication is the lifeline of community. We know that successful functioning of the community, however large or small, is dependent in great measure on steady, reciprocal communication, which implies common and widespread understanding of symbols. We feel that the quality of group activity is dictated by the quality of the group's communication. These are not new concepts at all, but they are repeatedly called to our attention by the investigations of linguists, psychologists, and anthropologists.

Implicit in this idea of the central role of communication in human endeavor is the fact that the limits of community are established by the range and availability of communication techniques. These limitations, in turn, are established by space, time, and meaning. The human voice on its own does not go very far, nor is it always understood. On the wings of wire, radio, television, and facsimile, however, the symbols of communication are transmitted almost instantaneously across great distances. Without these media the United Nations could not exist. Perhaps the key significance which teachers must examine is the unlimited possibility of broadening the community.

Facility of transmission does not eliminate problems of meaning, however; often it increases the difficulty and necessity of understanding. Media which employ non-verbal symbols as primary devices—motion pictures, graphics, television, and so forth—reduce problems of language meaning to a degree, but they have their own problems. They emphasize the need for understanding visual and auditory techniques.

Experts in the radio and motion picture industries understand the factor of immediacy and the ability to reduce some of the problems of meaning. Critics of radio, justified as they are in decrying radio's paucity of challenging program material, nevertheless recognize the fact that educators have only begun to foster improvement. We now hear and see more frequent and more meaningful comments about the world around us, but not because the schools have grasped the full meaning of the new media. On the contrary, educators (and too often teachers of English who are only beginning to be sensitive to such matters) have been blind or deaf to the essential differences between print, radio, and film as media, and have sought to apply one set of concepts to all.

In 1943, Lyman Bryson wrote,[1] ". . . the teacher must see the kind of world that modern communication has made for us to live in. He will need to understand communication as a tool for himself in teaching, and he will need to expand that knowledge to understand the social effects of its use in all aspects of our hurried lives."

This admonition is particularly applicable to teachers of English, those educators who have been most traditionally concerned with communication. Of course communication is not the special province of the English teacher any more than it is of teachers of speech or art or music. The problems of communication do not discretely pigeonhole themselves into any single subject-matter field. But the English classroom is one logical place to introduce an expanded study of communication.

OUR CHILDREN AND MODERN COMMUNICATION

Our children are inescapably caught up in the swift-moving current of modern communication. If a child today must make a choice of ideas, he will probably incline toward acceptance of the ones presented through the mass media to which his generation is attuned. Every teacher observes in one way or another the subtle influences of motion pictures, radio, advertising, and comic strips.

A young boy stands on a high step outside a New York museum. He spreads his arms and then leaps headfirst to the sidewalk below. He tells his rescuers that he was "just being like Superman." The boy's mother would probably report that he listens daily to Superman on the radio and reads the comic strip without fail.

A teen-age killer in Illinois tells police officials that his ideas about dual personality came from the motion picture *Dr. Jekyll and Mr. Hyde.* A nurse in Colorado confides that she decided to become a nurse after seeing the film *So Proudly We Hail.*

Even the least sensitive child is affected in some measure by motion pictures, radio, and the maze of graphic displays which surround him. He takes up his position by the radio for three or four hours a day, attends the movies at least once a week, and avidly pursues the adventures of comic strip heroes. Our children are geared to Disney, Corwin, Little Orphan Annie, and "Joe Doaks has switched to Calvert."

After a year of studying the effects of motion pictures on adolescents and adults, Mayer, a British sociologist, wrote: "If we persist in our academic remoteness from film as mass-influence, the doom of our civilization is certain."[2] Mr. Mayer's views are reinforced, less dramatically and without the element of doom, by the earlier Payne Fund studies in America and by numerous studies in the fields of radio and the press. The most conservative conclusion which one can make in the light of the data presented by such studies is that these media do affect our children.

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[1] Lyman Bryson, "The Study of Communication." *Teachers College Record,* Vol. 45, p. 83, November, 1943.

[2] J. P. Mayer, *Sociology of Film,* p. 25. London: Faber and Faber Limited, 1946.

Yet while it is natural for children to be affected by new media, it is not natural for them to observe and listen critically and draw significant inferences therefrom. Careful listening and observation are communication skills which must be developed, just as the skills of reading, writing, and speaking must be developed. The ideas and attitudes transmitted by the devices of communication and the way in which the processes of communication shape them must be examined with critical eyes and ears. Guided attention must be given to the analysis of symbols which literally make (and are) our idea environment. If such regard for observation and listening is not developed, then the devices of communication will control us; we will not control them.

COMMUNICATION CHANGES IN OUR CLASSROOMS

How have the schools reflected this revolution in communication? Are there signs of growing sensitivity to the new media? Are teachers accepting the challenge of guiding children through the difficult task of becoming consciously aware of how motion pictures, radio, and other mass media are molding opinion? And, finally, are the schools employing the powerful new media as valid communication techniques?

There is a great deal to point to with pride. A radio program like that in the schools of Cleveland is a significant step in the direction of utilizing radio. Here, as in several other cities throughout the country, the schools have their own radio station which broadcasts daily to the children in the classroom. Such a development is important, not because it contributes to a master-teacher concept, but because it recognizes one of the new media of communication and then takes the second crucial step and uses that medium.

James Monroe High School in New York City is one of the many high schools which make excellent use of newspapers in the classroom. In this school newspapers are used in much the same way that textbooks might be employed in other schools. From a careful examination of the newspapers students learn a great deal about composition, literature, world affairs, graphics and other media.

These signs are encouraging, but they are not typical of the vast majority of the schools in the country. In the typical school perhaps 10 per cent of the teachers sometimes use a motion picture or a filmstrip or a radio program, and then with a good deal of trepidation, and only after resolving a deep-seated conflict regarding whether to teach "froth" or "solid matter." Teachers are beginning to understand that the medium of communication does not establish the basic content of the message; that the medium simply determines the kind of symbols used and makes the message more or less acceptable, more or less readily received and understood by the modern learner.

"AIDS" A MISNOMER

Most of the significant advances in incorporating the newer media of communication into the normal classroom situation have stemmed from increasingly important audio-visual programs in the schools. The classification "audio-visual aids" includes a group of powerful communication instruments which have been mustered to assist in the learning situation—motion pictures, radio, recordings, still pictures, slides, filmstrips, models and exhibits, graphics, and field trips. Yet the term "audio-visual aids" reveals a type of thinking which is limiting.

It implies that motion pictures, radio, photographs, and the like are "aids" to learning or teaching. Yet these means of communication are not aids any more than the printed page is an aid. They are not appendages or "gimmicks." They are media of communication with the same validity as the printed page and the spoken voice. They are expressions of a revolution in communication which is changing the whole character of message transmission.

The term "audio-visual aids" has been consciously used in the past, and is used in the title of this article, for what has seemed a very sound reason. Implicit in the use of the word "aids" is the idea that the instruments in this category cannot do the job of education alone; that they do not eliminate the teacher. This is sound reasoning. But neither can the printed page or the human voice perform the task of education without the mediation of the principals in the learning situation—the teacher and the students. Communication is a process in which the human element is an indispensable factor. A new tool of communication does not eliminate this human element, but it may enlarge the range of human activity. Only when the potent audio-visual devices are elevated from the subordinate role of aids will we be able to realize their full significance in the modern classroom.

AN OBLIGATION AND AN OPPORTUNITY

Educators are faced with a prime obligation: to bring to the classroom the new devices of communication (plus some old ones) and to make clear the important role of these devices in the modern and ever-broadening community. They must be dealt with in a manner which will stimulate critical examination and interpretation on the part of the students.

Accompanying the obligation to deal with the modern techniques of communication in the classroom is the opportunity to erase the traditional boundaries limiting classroom experience. The business of education is experience. The active role of education is to provide experiences which will help the child, under guidance, to solve current problems and meet persistent life situations. Here the auditory and visual devices of communication make their greatest contribution. With motion pictures, radio, slides, filmstrips, charts, graphs, models, exhibits, and so forth, we can present a situation dramatically and realistically in the classroom, in whole, in part, inside and out.

A film such as *The City* helps create Situation City in the classroom, with all of the elements of city life—its tempo, its dependence on centralization, and its disregard for aesthetics and functional art.

In the same manner, a radio program such as *The Eagle's Brood* (CBS) dramatically builds images which help create Situation Juvenile Delinquency. So charts and graphs (often regarded as mavericks in the field of communication) interpret Situation Inflation.

We should recognize the fact that experiences and meanings do not come automatically. Active participation of the teacher and the student is required, and active participation does not mean "sittin' and soakin'." It is necessary to examine the roots of all communication to get at reasons and intentions. It is essential to observe critically when ingratiating newer techniques are employed.

In the last analysis, communication always plays the role of a substitute—a substitute for the *real* situation which it symbolizes. Language is the most common communication medium, but it often proves inadequate by comparison with many of the other instruments of communication which substitute non-verbal symbols or reinforce verbal symbols. A situation created in words alone may not be clearly defined. It may, unfortunately, leave the hearer completely out of any active role. It is particularly important then, that the teacher employ those communication techniques which approach reality most directly—the techniques of the cinema, for example. Slides, while they eliminate the motion and sound employed by the cinema, also present reality more concretely than do words alone.

AN EXAMPLE

The Communication Skills courses at Teachers College are concerned with five skills: reading, writing, listening, speaking, and observing. Attempts are made in each class session to work with as many of these skills as possible, and no skill is emphasized to the exclusion of any other. This approach requires focusing attention on such media as motion pictures, radio, the press, and graphics, as well as on the problems of speaking and writing.

For the first session of the current semester, the various sections of the Communication Skills class were brought together to see Pare Lorentz's documentary film, *The River*. These steps were followed in using the picture:

1. A detailed introduction was given to the class. In this introduction the events leading up to the production of the film were discussed. Particular attention was given to the history of the Resettlement Administration's various attempts at unifying the public behind a program of federal action.

2. The students were asked to look

and listen critically for visual and sound symbols which created the power of the picture. They were asked to put themselves in the position of the creating artists in an attempt to identify the reasons for using specific symbolic devices.

3. The film was shown.

4. After the showing, the three sections of the class discussed the film and its sources of power. Again the students were asked to be specific in identifying the techniques which were used to create effects in the film.

5. At the second meeting of the class the students were given a simple test of observation. It asked for answers to two questions: What do you think was the purpose behind the filming of *The River?;* What symbolic devices were used in the film to portray (*a*) the destructive forces of nature if left unchecked by man; (*b*) the constructive power of natural forces if controlled by man; (*c*) human suffering?

The discussion and test revealed many crucial factors in communication. It was significant that students noted many widely differing reasons for the production of the film. Among them were: to make others realize their good fortune in not living where they could be exposed to such disastrous conditions; to give historical background for the present conservation movement; to unite people behind projects to control nature. This fact emphasized the necessity for readers to examine intents and purposes behind communication.

In analyzing the symbolic devices many students cautiously mentioned a discordant passage of music which highlighted scenes depicting the results of economic exploitation. Others ventured that the musical accompaniment at one point, *There'll Be a Hot Time in the Old Town Tonight,* was used to strengthen the impression gained through visual images of indiscriminate felling of trees and denuding of hillsides. Some pointed to the fact that children were used throughout the film to emphasize contrasting situations in the Mississippi before and after the Tennessee Valley Authority. Others noted that each sequence was introduced through the symbolic medium of the sky in its changing moods —gray and ugly when the sequences to follow pictured stupid, distasteful, and ugly things; bright and sunlit when the ensuing scenes pictured a "good life." Few students saw all of these.

This approach to a course in Communication Skills emphasized at the outset the changing nature of communication and the necessity for intelligent citizens to be critically aware of the devices which surround them and mold their thinking. It was, in effect, a mild shock treatment designed to bring the students from their limited orientation to a broader one which included a willingness to understand the full role of communication in the modern community. The fact that the motion picture did not say the same thing to all people, despite its graphic character, made clear certain common problems in print and radio as well.

An analysis of the changing nature

and effects of modern communication points up three compelling reasons for teachers (and especially teachers of English) to employ auditory and visual techniques in the classroom.

1. The devices which make richer communication available to enlarging communities are at hand. Without these devices the concept of One World is only a dream; with them it is a possibility. But the devices must be recognized by the schools; they must gain prestige, mature acceptance, and eventual guidance in the classrooms.

2. A second reason may best be stated by quoting from the conclusions of a recent study:

> . . . The teacher of English should recognize the propensity of pupils not to limit their leisure language experience to one medium. Instead of placing the emphasis in classroom instruction upon the traditional activity of book reading alone, the teacher might profitably make use of other receptive skills. Training in listening, an understanding of the art of cinema, instruction in the interpretation of combined pictorial and verbal communication, analysis of magazine and newspaper content—these would then be considered important aspects of instruction in the English language.[3]

3. Having recognized these reasons, the teacher can come to the realization that the new tools of communication may serve an essential (rather than an incidental) dramatic purpose in the classroom by expanding the boundaries of experience.

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[3] Alice P. Sterner, *Radio, Motion Picture, and Reading Interests*, p. 61. Contributions to Education, No. 932. Bureau of Publications, Teachers College, Columbia University, New York, 1947.

Workshop Dynamics

MARY HOUSTON DAVIS

INSTRUCTOR IN TEACHING OF ENGLISH AND FOREIGN LANGUAGES, TEACHERS COLLEGE

WHAT happens when a selected group of nine English teachers from various parts of the country set out to do nine different curriculum projects under workshop circumstances?

NINE selected high school teachers met at Teachers College in the summer of 1947 for the workshop called "Studies in the English Curriculum." Each expressed a general interest in curriculum revision; each was interested also in formulating a plan to be tried out in a particular school in the fall.

These teachers came from a variety of communities and taught in a variety of school situations. One came from East Aurora, an upstate New York dairy farming community adjacent to Buffalo. Another came from Tuxedo Park, a community composed of estate residents and townspeople living "outside the grounds." A third taught in a county high school for Negroes, in a small suburb of Anniston, Alabama. A fourth member supervised a developmental reading program in the junior high schools of Baltimore. A fifth taught in a private school in St. Louis. Two others came from Florida, one from a resort city, the other from an industrialized port. The two remaining members were teachers in high schools of suburban communities near New York City.

One or two of these teachers, all of whom were experienced people with serious professional interest, had specific ideas about the problems they wanted to work out. Most of them arrived with little more than a wish to do something fresh and meaningful.

DEFINING THE WORKSHOP

Our first task, therefore, was to consider the purposes and techniques of a workshop. We defined a workshop as: (1) a learning situation in which mature and experienced people meet for extended periods of group discussion in which they seek solutions to problems which concern them individually, in their own school situations; and (2) a situation in which one problem common to all may be studied. Varied backgrounds made us decide at first to work upon fairly individualized problems.

But people can help one another only if they understand one another. The achievement of any kind of mutual helpfulness presents a problem in communication, and communication demands common understandings that can be articulated. We therefore set about to formulate and discuss as a starting point the problems that were general enough to be shared by all in the group. We enumerated and described those points of view and "emphases" in teaching common to all of us, despite obvious differences in individual teaching situations. We found, gratifyingly, that our first thought was of our students—who they were, where they lived, what we were doing or might do to make them live more competently and more happily in that place, with all of the many relationships any place can hold. Were we deepening their sense of belonging, giving them an increased sense of security in a world in which disruptive influences seem to multiply daily?

CONSIDERING COMMUNITIES

Questions like these very naturally led us into further common experience. Each teacher undertook the task of looking at her own community, because it was the life setting of her students, and because her first obligation as a teacher, regardless of her speciality, was to do all that she could to help her students achieve a better life in that setting. To this end we studied ways of looking at a community. We turned for guidance not only to educational records of community studies, but to the work of anthropologists and human ecologists as well. Such books as Spencer Brown's *They See for Themselves*, Chatto and Halligan's *The Story of the Springfield Plan*, West's *Plainville, U.S.A.*, and Dollard's *Caste and Class in a Southern Town* demonstrated ways of observing a social setting and the behavior patterns that grow out of it.

Several members of the group observed that they had never before been asked to give any serious and ordered thought to such matters as economic and cultural status, standards of living, family patterns, social group expectations and conflicts, civic organization and leadership. Each member of the group discussed her particular community at length; three wrote detailed descriptions of their setting as prefaces to their workshop projects and incorporated into the projects themselves very strong community emphasis. Each person also saw her community in its regional and national settings and recognized in the course of this experience a number of problems common to all.

This appraisal of one's community was so useful to these teachers that, for a common project, they undertook to write together an essay recommending this experience to others as a necessary first step in the modernization of any curriculum.

CONSIDERING CURRICULA

As they began to define the tasks that they wished to accomplish and the programs that they wished to take back to their schools, the workshop members discovered a need for acquainting themselves with newer practices and emphases in teaching generally and in English particularly. Conscientious teachers are busy people. Twenty-five classroom hours or more, together with additional hours of preparation, correction of student work, and other duties, leave but a small margin of time for the examination of new materials. These teachers had heard about many developments that they had had neither the time nor the opportunity to investigate. Their desire to examine critically new plans, techniques, and research findings was one of the chief reasons why they had come to Teachers College. We therefore spent two very full weeks reading in the fields of curriculum planning, adolescent growth and development, communication and the symbolic process, cultural approach to literature, and intergroup relations. Reading assignments and suggestions were divided; notes were shared; discussions were numerous. Since several members of the group were enrolled only in this workshop, concentrated work was possible. Many agencies besides libraries were used: the British Information Service, the Museum of Modern Art, East and West Association, Bureau of Intercultural Education, radio facilities, plays, and films. Only after this period of concentrated cooperative inquiry and reading were most of the members of the group able to give form and concreteness to the general plans with which they had come to Teachers College.

During the next three weeks plans for individual programs and courses were developed. The momentum of group activity did not cease on this account, however. The workshop members helped each other continuously. Each new idea was tried out in discussion. Dr. L. L. Jarvie, Associate Commissioner of Education in charge of the New York State Institutes, Miss Mary Crow, chairman of the steering committee for the revision of the Bethlehem, Pennsylvania, public school curriculum in English, and Dr. Edwin S. Fulcomer, chairman of the English department of the Montclair State Teachers College, rendered invaluable assistance as consultants during this period.

The studies and plans for revised courses, which the teachers wrote during the second half of the Summer Session, can be classified under four general headings, closely related as aspects of communication: (1) communication skills; (2) the community —communication, the basis of community; (3) human relationships—the individual and society, family life, adolescent growth and development, (4) cultural approaches to literature —literature and American life, literature and intergroup relations, literature and world friendship.

INDIVIDUAL PROJECTS

A supervisor of reading skills in the junior high schools of Baltimore revised the program in developmental reading. Through a series of exercises for building skills in comprehension and interpretation she stressed the developmental rather than the remedial or corrective aspect of learning. Because of the technical character of this important piece of work, only brief mention can be made here.

A unit called "Audience Relationships" for a twelfth-grade class in Tampa, Florida, emphasized communication as a two-way process. "How to win an audience" and "how to be an audience" were recognized as distinctive, though related, concerns. The unit supplies techniques for studying both types of experience. Students and teacher plan ways of making speech effective by an appropriate manner of presentation. Emphasis is placed upon a positive relationship between speaker and audience, the selection and organization of material for a given purpose, the choice of language and illustrative material for different audiences, subjects, and situations. Magazine articles and radio programs are considered with reference to the audience for whom they are intended. Student speeches are recorded for voice and diction improvement. Students speak before elementary school groups, P.T.A. meetings, and suitable community gatherings. "Being an audience" is described as that too long neglected aspect of communication which the popularity of radio and talking pictures has made essential to every up-to-date school program. This project stresses the difference between mere hearing and intelligent listening. Students are urged to watch the speaker, watch for key sentences, and later reconstruct the total pattern of the speech with appropriate subordination of details. Practical exercises, checks on effective listening, are proposed. Students analyze the appeals made in radio commercials, and study a variety of radio news reports and analyses in order to understand the difference between unprejudiced reporting and the expression of personal or political bias. Students are encouraged to note effectiveness in the use of voice, diction, and idiom, and are trained to be aware of some of the obstacles to clear understanding. The teacher uses numerous recordings—including the Shakespearean readings of Judith Anderson and John Gielgud, and Archibald MacLeish's readings of his own poetry—to illustrate variations in style and to compare their effectiveness. Many of these procedures which are familiar to teachers of speech deserve more attention from teachers of English.

Another series of exercises in communication skills was prepared for students in the Tuxedo Park High School. The teacher outlining this study calls it "Experiences with Words as Part of a Language Arts Program," and proposes to use these exercises with grades nine through twelve. Most of the exercises are to be used in connection with the basic units of work and are planned around themes or problems. The exercises are, therefore, not ends in themselves, but instruments for fostering accuracy and clarity in interpretation and in expression. They fall into two general categories: those designed to train students in precision of meaning, in the denotative use of words; and those intended to develop understanding and appreciation of figurative language, of the multiple, connotative meanings of words, of the emotional power of language. The exercises for clarifying the meanings of abstract words are particularly useful. Here the teacher tries to help students avoid the unnecessary use of generalities and to use instead terms which are concrete in their reference, to substitute the specific for the vague. This unit also teaches students to recognize and employ various levels of usage for appropriate ends and to replace outmoded and stereotyped expressions with others of greater freshness and originality. The exercises in the connotative meanings of words draw not only upon basic materials in English and social studies, but also upon other resource materials such as recordings, radio programs, and newspaper editorials. The teacher encourages the analysis of the power of words in establishing the emotional tone of a literary selection. For instance, the effectiveness of simple idiom in Robert Frost's poetry is considered. In a variety of ways the teacher tries to demonstrate the relationship between the student's ability to communicate effectively and his knowledge and appreciation of words.

HUMOR AND THE SENSE OF PROPORTION

Another member of the workshop prepared a unit on humor as an aspect of communication. This unit, which is linked to a community study of East Aurora, to be described later, contains a series of suggested exercises for training students in the kind of skills essential to the recognition and articulation of current folk symbols and social values. In this study humor is treated as a basic and very appealing kind of communication which furnishes people with common bonds and so unites them. Humor is very much a part of school life and the "surest index of a good teacher." It is a way of seeing more clearly, knowing how people feel, keeping things in balance. "Humor sells goods, helps people rear children, and changes its designs as fast as Hattie Carnegie does hers." Cartoons, comic strips, films, radio humor tell much about our family life, our work, our machines, and what they are doing to our civilization. Students should be sensitive to variations in humorous material, to wit and whimsy, irony and satire. This unit of work utilizes a great variety of materials in its analysis of humorous content and the quality and effectiveness of the appeals. The teacher succeeds in distinguishing between locally understood humor and that which is broader in its audience appeal. She suggests that students seek explanation for the fact that Bob Hope is funny chiefly to us in the United States, whereas Charlie Chaplin and Mickey Mouse appeal to European and South American audiences as well as to our own.

MORE ON COMMUNITIES

The next three projects to be described are general English programs based upon the study of a community and the utilization of community resources. Each of these studies grew out of certain convictions: wholesome personal living and wholesome social living are mutually dependent; individuals need to feel a sense of belonging not only in familial and primary circles, but in broader social circles as well. This kind of belonging imposes obligations and responsibilities in addition to conferring privileges. Individuals should actively participate in the life of their group on the level and in the roles best suited to their age, training, and talents. They need, therefore, to be informed about the social group to which they belong, and to be acquainted with the conditions affecting the life of the group and the many interrelationships that constitute that life. Each of the three proposals that follow emphasizes the recognition and interpretation of group symbols which, when shared, constitute the mutual understandings that make communication and community possible.

The teacher from Miami proposed a general English program based upon community resources and needs of her twelfth grade non-college students. In her introduction to the project, a detailed description of her community, she notes that changes in the population of Miami have reduced the 80 per cent of students who formerly went to college to 50 per cent. No new course of study had been evolved for the non-college student. This teacher wishes to work with other teachers in her school

> . . . to provide students who are completing their general formal education at the high school level with experiences that will: (1) develop communication skills so as to give students means of attaining independent learning and independent judgments; (2) instill a sense of being needed by the community in which they live; (3) instill an appreciation of American ideals, similarities and differences; (4) encourage an understanding of the human race, an understanding that reaches below superficial differences.

Miami is described by this teacher as one of our last frontier cities, a city with young cultural roots because it is not as old as this century. Two thirds of the population came during the real estate boom of 1926. An influx of people from all parts of the country markedly influenced community living.

> The majority of the present adult population still feel home ties with other communities and states; and in many cases this feeling of not belonging to Miami has carried over to the present generation of school children. Another factor that aggravates this feeling of not belonging is the heavy tourist traffic that is directed to Miami each winter. A vacation atmosphere pervades most of the school year, and relatives or friends from somewhere supplement almost every family group. Yet . . . two hundred thousand Miamians are year-round citizens . . . and, "Here we must live or live only as shadows."

COSMOPOLITAN CONSIDERATIONS

Further detailed description reveals advantages in this heterogeneously populated city. The schools might well use these advantages, such as cosmopolitanism, more than they do.

> To the average high school graduate faced with earning a living in Miami, the choice is rather "what people shall I work with" than "what machines shall I work with." Miami is not industrialized. . . . Since our young people are destined to work with the public they should be given the communication skills that will train them to be speakers, listeners, watchers, and readers in a business world. . . .

Then follows a plan for the students' own community study, the aims of which are:

> . . . to understand the local community, its history, inhabitants, resources, attitudes, and needs; to gain a sense of belonging in the community; to acquire resourceful methods of gathering material and information; to perfect communication skills; to practice cooperative work habits.

The students make a list of the birthplaces of their parents and grandparents and their varied backgrounds. They next accumulate and organize material on their city, its history, legends, topography, scenic beauties, educational institutions, communication facilities, recreations, welfare institutions, churches. They see motion pictures, use the library, take notes, write to the chamber of commerce, the historical society, the weather bureau, the family service bureau, the director of recreation, the judge of the juvenile courts such letters as may be appropriate. Panel discussions follow on such considerations as the family as a primary social unit, "in-groups" and "out-groups" in Miami, civic pride and responsibility, standards of judgment. Local newspapers are studied and compared with those of other cities. Reading, writing, speaking, listening, and observing activities are numerous. In all of these the teacher uses very skillfully the grammar and composition texts which are at hand, for she realizes she cannot depart too far from the custom established in her school system. She uses these texts, however, in a thoroughly functional manner.

As a culminating test in the community unit, each student is to be given a practical problem that relates to a knowledge of Miami. For example:

> I have one thousand dollars to give to Miami. Where is the need most urgent?
>
> I plan to move to Havana next month. Please list the steps necessary in arranging for transportation, emigration, etc.
>
> Please explain to me how the members of your school administration board are selected.
>
> I have a boy thirteen years old. We are new in the community, and he wants to make friends. What organizations can he join?
>
> My child is badly in need of medical attention, and we have no money to pay for it. How can I go about applying for and receiving community aid?
>
> I am planning to buy a car. What expenses aside from the actual cost should I take into consideration?

This community study occupies one half of one term's work; the second half is spent in a study of American regions, with representative readings in literature and numerous varied communication activities. The range of printed literary materials is comprehensive. Newspapers, motion pictures, and recordings are to be used also. The second term is devoted to a broader field of study, for "world understanding" is to be its theme and world literature its principal illustrative material.

A NEGRO COMMUNITY SCHOOL

The teacher of English in a Negro county school in Alabama also proposes a community emphasis in her teaching. Hobson City needs to feel itself more completely a community. The township of fifteen hundred people lies adjacent to the city of Anniston. It has a high school and several churches, but very little social cohesion and little or no political identity.

This teacher establishes the following aims:

> To provide a program that will allow each student to develop to his fullest capacity; to assist each student in finding his vocation; to perpetuate democracy by teaching and practicing it; to make each student conscious of his responsibility as a citizen in his community; to have the school and community exist for each other; to develop character and leadership.

She is convinced that a core program, or, at any rate, a program that is highly correlated around vital themes is the best type of program for her school. She would, if possible, have the entire school conscious of common purposes, plan a public relations program, participate in a variety of related activities. She is realistic in being aware of her difficulties, but she adds, "Little do they (my people) realize the opportunity that exists among themselves."

The project for the ninth and tenth grades of Hobson City's high school is built upon a concept of areas of living. The year's work is centered on three themes: "our school, our homes, our town." A letter from the teacher after the plan had been set in motion this fall reports remarkable progress. The students began with a consideration of the topic, "What It Means to Live Together in an Attractive Place." They planned together what they might do to render their school more attractive and what they might do to live better in it. "They drew plans of their room and of their school, inside and out." They arranged a bulletin board for the display of these plans. Committees went to work on improvements. This undertaking involved cooperation, discussion, judgment, and a variety of specific communication activities, in addition to considerable work required to carry out the few simple plans. Next, the parents received written invitations from their children to come to school for an "open house." The children discussed introductions, conversation, and good manners.

The "home" project will begin simply and proceed to such questions and suggestions as: What improvements would you like to see in your home? As you calculate the cost and make your plans, you might do well to consider first the things that you can do yourself or with your family's help.

The "town" unit begins with an orientation exercise. What direction do you live from school? In what section of your town do you live? Where is your town located in the county, in the state, in the United States? The children study local papers to distinguish local items from items of broader interest. They listen to one radio news report daily. They plan a class paper.

The Hobson City teacher is emphasizing community themes in her eleventh and twelfth grades, as well as in the first two years of high school. The eleventh grade is responsible for the school newspaper; the twelfth is studying government—local, county, state, and national. A planning committee of students helped outline the term's work. Each student is expected to make two speeches during the year, one in chapel and one before some community gathering. The teacher has acquired a machine for recording students' voices.

"OPERATION GANGPLANK"

Another program with a strong community emphasis was prepared for an eleventh grade in East Aurora, New York. Here, again, the main purpose is the social orientation of the individual. Although this work is being directed by the English teacher, the teachers of history, science, music, and art, and the school librarian are actively cooperating. The project is called "Operation Gangplank, S.S. Community" and is described in four sections: Embarkation—How to Look at a Community; Tickets, Please—The Cultural Approach to Literature and to History; The Voyage—A Proposed Program for an Eleventh Grade; Tourists' Notes—Materials and Resources. Thus the teacher sketched her basic educational philosophy. The proposed program itself contains four sections.

The first, "Modern Minds for Modern Living," is a lively unit in communication skills. The students list and discuss their immediate communication needs, and what their future communication needs are likely to be. Activities focus upon immediate surroundings, areas of living, and human relationships.

The second section is called "America Is Big and Little Towns Like Ours." A reading of Thornton Wilder's *Our Town* suggests such questions as: Are there any people in East Aurora like Doc Gibbs and Editor Webb? Do the radio and movies give us people like these, also? What are the sayings of our community, its proverbs, its characteristic comments on life? A scrapbook of the town might very well show it as an expression of people, their hopes, dreams, ways of living and working. Field trips for observation and reporting are anticipated. The students are to collect the legends and tall tales of their town's frontier days. Then, other towns are studied through literature, particularly the short story. Records and films are to be used also. The big and little towns thus become a study of regionalism.

The third section, called "The Atom and the Town," is intended to give experience in understanding scientific information and what is meant by scientific method. In addition to books and articles on popular science, students read such materials as Lewis' *Arrowsmith*, Stewart's *Storm*, Hersey's *Hiroshima*. The teacher thinks the timely character of this unit will promote enthusiastic responses. She says, "Here are infinite possibilities for using the living newspaper technique, for radio scripts, for short stories, poems, and discussions with neighboring school groups."

In the fourth section, "Hands Across the World; Friendship to Other Communities," the teacher hopes "to use every available means—radio, newspaper, stage, screen, the discussion group, the lecture, the painting—to place the students in a world setting." She plans to have them exchange letters with students in other sections of America and with foreign students. She plans also to have them collect and send abroad boxes of books and materials.

BIG CITY AND SUBURBAN PROBLEMS

A unit of work in the family for a twelfth grade class in St. Louis illustrates the interest the workshop members expressed in studying human relationships. This unit in family life patterns is proposed as part of a year's course called "The Individual and Society." The teacher writing this proposal stresses adolescent growth and development and the need for mutual understanding and security in the most primary of group settings. Her literary resources include Steffens' *Autobiography*, Part I, O'Neill's *Ah, Wilderness*, and Wunsch and Albers' *Thicker than Water*. She correlates these materials with sociology and psychology, omitting as far as possible the technical terminology of these sciences. The students are led to consider what modern urban living is doing to the family and what schools and social welfare groups are doing to compensate for the negative effects of city life.

An "American life" study was outlined for students in a high school near New York. This study aims to help develop a better understanding of American life through literature. The teacher wishes "to develop an interest in American literature through a consideration of typical life situations."

A cultural approach to English literature was planned to replace the survey course usually given in a suburban high school. This project is called "A Quest for the English Spirit in Literature." The teacher and students are to utilize materials from the British Information Service, English newspapers, magazines, and the BBC broadcasts which were made by Priestley, Maugham, and Clemence Dane during the war. Early in the course the teacher is having her students see films like *This Happy Breed* and *The Tawny Pipit* for comparison with American films on similar themes. The teacher is selecting her materials carefully for their contemporary meanings.

"World Friendship, a Resource Unit in Twelfth Grade English," was prepared as part of a new curriculum revision project in Tampa, Florida, for which Dr. Angela M. Broening of Baltimore has been consultant. Tampa has many students with Latin-American backgrounds. The aim of the unit is to foster intercultural and intergroup understanding through a variety of reading, speaking, listening, observing, and writing activities. Students are taught "to think, plan, judge, make choices, and assume responsibilities which are important and worth while to them." They participate in planning, developing, and evaluating the three sections: Our Town; Americans All; One World. Discussion questions and suggestions growing out of readings in world literature indicate the part played by art, music, religion, science, and invention in uniting the peoples of the world. There is a substantial list of recordings. The students listen to radio programs dealing with problems of international relations. They become acquainted with the songs, instrumental music, and travel films of other lands. The teacher adds lists of organizations which furnish names for exchange correspondence, for example, the Junior Red Cross, Books Across the Sea; organizations to which one may write for materials, such as the East and West Association, Foreign Policy Association; travel agencies to which one may write for books and folders.

EVALUATION

Evaluation of a workshop experience can be made only in terms of actual results. An effective workshop experience should lead to more effective teaching. Several of the teachers in this group have written reports of progress thus far, and the reports have been gratifying.

In the middle of the session last summer one of the teachers remarked: "Do you realize the difficulty we have had working together? Yet that is the very thing we insist upon our students' learning to do. Why should it be so hard for us?" Actually, although the group failed to complete to their satisfaction their jointly planned essay recommending the broader use of community resources, they had succeeded in helping one another on the individual projects.

The realization that working together on a common task is both difficult and important constituted one of the most significant learnings of the summer. The group had discovered the consequences of the lack of clear channels of communication among English teachers in many American high schools. That discovery is part of the current dynamic of English, along with the community concerns which emerged in the course of the six weeks of the workshop.

Departmental Notes

Advanced School of Education

Effective November 1, Professor E. S. Evenden took over his new duties as executive officer of the Advanced School, succeeding Professor Edward H. Reisner.

As chairman of the committee on standards and surveys of the American Association of Teachers Colleges, Professor Evenden attended a committee meeting at the Henry Hudson Hotel in New York October 11 to 13. The group considered various items in its growing program of professional studies and made plans for reporting at the Atlantic City conference in February.

Professor Evenden attended a meeting of the executive committee of Kappa Delta Pi at Columbus, Ohio, October 25 and 26, as Laureate Counselor.

Institute of Field Studies

Late in October, the Institute's survey group, which is making a study of the Montclair, N. J., school system, began a series of conferences with Montclair officials and townspeople to obtain background information on the schools, to answer questions, and to receive suggestions.

Division I

Foundations of Education

SOCIAL AND PHILOSOPHICAL FOUNDATIONS

Professor Edmund deS. Brunner has been elected a trustee of Moravian College, Bethlehem, Pa.

International relations and problems of agriculture were Professor Brunner's topics at the annual conference of the Agricultural Extension Service of Ohio State University held October 14 and 15 at Columbus.

A chapter on Horace Kallen, Educator, was Professor Brunner's contribution to *Freedom and Experience*, a publication edited by Dr. Sidney Hook and Dr. M. R. Konvitz.

PSYCHOLOGICAL FOUNDATIONS AND EDUCATIONAL RESEARCH

The committee on measurement and guidance of the American Council on Education sponsored an invitational conference on testing problems November 1 at the Roosevelt Hotel, at which Professor Percival M. Symonds read a paper on "Survey of Projective Techniques."

Division II

Administration and Guidance

EDUCATIONAL ADMINISTRATION

This fall, Professor Henry H. Linn completed a school building survey at Somerville, N. J. He is now studying the building needs of North Plainfield and Fair Lawn.

Members of the Southeastern Minnesota Education Association heard Professor John K. Norton speak on "Problems in the Financing of Education" at Rochester, Minn., October 24.

Professor Paul R. Mort addressed the Dutchess County (N. Y.) Teachers Conference at Poughkeepsie November 3 on

New York State aid; spoke to the annual conference of the State Elementary School Principals on "Fiscal Policy for Education in New York State" in Syracuse December 29, and discussed "Marshalling Support for Effective Education" before the Rochester, N. Y., School Administrators Council December 4.

At the Women's City Club of New York meeting November 5, Professor Mort described the present school situation in the City, changes that would be desirable, and means by which such changes should be financed. He also spoke November 10 at a dinner meeting of the combined Parent-Teacher Association and Teachers Association of North Plainfield, N. J.

Fiscal Policy for Public Education in the State of New York, a report directed by Professor Mort for a joint committee of the State Educational Conference Board, and the Public Education Association of New York City, was published November 6.

GUIDANCE

Approximately seventy-five persons heard Dr. Warren K. Layton, director of guidance and placement in the Detroit Public Schools, speak at a meeting sponsored by the Teachers College branch of the National Vocational Guidance Association, of which he is national president. Dr. Layton discussed national plans and policies, and pointed out the advantages of attending the annual convention in Chicago this spring. New officers of the local branch of NVGA are: Stephen Perry, president; Carroll Blanchard, vice president; Mrs. Emily Philpott, secretary; Miss Fay Corey, treasurer, and Richard Peebles, student representative.

A manual on *The Training of Vocational Counselors,* undertaken by a committee of the NVGA, was prepared in Philadelphia October 24 and 25 at a conference attended by Professor Harry D. Kitson.

Professor Donald E. Super was present at a meeting of the Council of Guidance and Personnel Associations in Chicago November 8 and 9, to plan for the annual convention in March. Professor Super addressed a luncheon meeting of the Connecticut Vocational Guidance Association on "Psychological Factors in Vocational Adjustment" in Bridgeport October 31.

"Education Against Destructive Aggression" was Professor Ruth Strang's topic before a meeting of Eta chapter of Pi Lambda Theta at the Illman Carter School of the University of Pennsylvania October 14.

At the opening meeting of the Institute on Guidance Problems of Boys and Girls in Rural-Industrial Areas held in the NEA Auditorium in Washington October 20 and 21, Professor Strang welcomed the members on behalf of the Board of Trustees of the Alliance for Guidance of Rural Youth, the sponsoring body. She also served as a consultant, and evaluated the panels on "Problems of Boys and Girls in Mining Camps of Harlan County" and "Suggested Action Regarding These Problems."

The five-state conference of health education secretaries of the National Tuberculosis Association heard Professor Strang speak on "Motivation in Health Education" on October 24.

As a consultant of the advisory service in personnel work of the American Council on Education, Professor Esther Lloyd-Jones visited Valparaiso University in May, and Juniata College in November. In August, Professor Lloyd-Jones attended one of the annual conferences sponsored by the committee on student counseling which she heads for the Hazen Foundation. She is also serving as chairman of the guidance section of the cooperative study Teachers College is making of the Great Neck, N. Y., school system. William Max Wise and Mrs. Grace Ford Wood are assisting her in this area.

On October 27, Professor Lloyd-Jones spoke to several groups of faculty and students at Cornell University; on October 28, she met with two groups at Syracuse University, and from November 3 to 5, she participated in the program on trends in student personnel work at the University of Minnesota, where she read two papers on "Personnel Work as a Profession" and "Methods of Counseling Students."

Kenneth Herrold represented the student personnel administration area at the annual meeting of the State Association of Deans and Guidance Personnel at Lake Placid, N. Y., October 11 to 13.

Now on leave of absence, Professor Harriet Hayes will retire from active service in June. She is living at her home in Carmel, California.

Division IV

Instruction

CURRICULUM AND TEACHING

Associate Dean Hollis L. Caswell spoke on curriculum development problems at conferences around the country this fall. On October 16 and 17, he read a paper, "Sources of Confusion in Curriculum Theory," at the University of Chicago meeting on this subject. Dean Caswell addressed the Delaware County Teachers Institute on "Some Things We Are Apt To Forget About Teaching" at Swarthmore, Pa., October 20; led a panel discussion on "Problems in Developing a Modern Curriculum," and spoke on "The Development of a Modern Curriculum" at the Southeastern Minnesota Education Association at Rochester, October 23 and 24. He presented "A General Curriculum Worker's View of Reading" at a joint meeting of elementary and high school teachers of the District of Columbia in Washington, October 25. Dean Caswell spent November 12 in Bloomington, Ill., working with various groups on problems in curriculum change.

Professor Ernest G. Osborne has recently been elected to the program committee of United Service to China. He established extensive first-hand contacts with the education and welfare programs of this group on his trip to China last year.

"Problems of Providing Recreation of Children from Five to Ten" was Professor Jean Betzner's concern at the National Recreation Association Congress October 13 to 17 at the Hotel New Yorker. She was chairman of a discussion on this subject. On October 20, she addressed the PTA of the Stratford Avenue School, Garden City, N. Y., speaking on "Today's Children and their School Programs."

In Milwaukee, Professor Betzner discussed "Children's Literature and Children's Reading" and "In the Midst of Riches They Starve" before meetings of the Wisconsin Education Association November 6 and 7. She also spoke at the meeting of the Wisconsin Association for Childhood Education.

Professor L. Thomas Hopkins addressed the art section of the Virginia Education Association and the faculty of Virginia Union College October 17 on "Arts as Learning," and spoke to the supervisors of the Baltimore, Md., schools three days later on "The Role of the Supervisor in Curriculum Construction." That evening, he addressed the Guilford School PTA on the situation in Germany, where he recently spent several months.

On November 10, Professor Hopkins discussed "What Is Desirable Learning" with an Englewood, N. J., PTA group, and on November 14, lectured to the members of the Ninth Annual Art Education Conference at the State Teachers College, Kutztown, Pa.

At Kingsport, Tenn., Professor Alice Miel served as general curriculum consultant from September 30 to October 3. She will be working with the Kingsport schools, which are launching an over-all study program, for the next year or two.

Professor Miel spoke on "Cooperative Planning with the Teachers" October 7 at Junior High School No. 5 in Trenton, N. J.

"Music for Children" was the topic of Professor Emma D. Sheehy when she addressed an elementary school group in Manhasset, N. Y., November 24.

On October 16, Professor Florence Stratemeyer delivered a lecture before the New York State League of Nursing Education, discussing "More Effective Learning Through Dynamic Instruction."

At a meeting on October 16 which is one of a series being conducted to help the Westport, Conn., teachers acquire an understanding of the nature and uses of audio-visual materials, Professor Paul Witt told a group how to prepare and utilize educational slides.

The new foreword of the revised edition of *Good Education for Young Children* was written by Professor Roma Gans. This is a re-working of the 1946 publication, sponsored jointly by the New York State Associations for Nursery Education and for Childhood Education.

SOCIAL SCIENCE

Visiting professor of geography at Stanford University during 1947-48 is Professor George T. Renner, who returns to Teachers College next year.

NATURAL SCIENCES

Professor Gerald S. Craig participated in a workshop at Cecil County, Md., September 22 to 24; was consultant for schools in West Essex and Raritan, N. J., this fall, and spoke at the Utah Education Association meeting October 9 to 11 in Salt Lake City.

On a trip to the West Coast at the close of the summer session, Miss Elizabeth Feeney, an instructor in the department, visited and observed science work in several Seattle, Wash., public schools and one private school. She also attended the Seattle Institute and was a guest at a regional science club dinner there. Later this fall, she participated in a workshop at Wilmington, Del.

MATHEMATICS

Professors W. D. Reeve and John R. Clark are members of the groups surveying the Great Neck, N. Y., and Montclair, N. J., schools.

Leader in a primary arithmetic study group of the Staten Island, N. Y., Primary Teachers Association October 2 was Professor Clark, who also addressed the mathematics section of the Western Pennsylvania Education Association on "Setting Better Learning Situations in Mathematics," October 17.

Instructor Howard Fehr spoke to a group of mathematics teachers at Richmond, Va., Friday, October 17.

FINE ARTS

Chief speaker at the art section meeting of the East Tennessee Education Association conference in Knoxville October 31 was Professor Edwin Ziegfeld, who talked on "Art Education and Freedom."

MUSIC EDUCATION

Making ten visits to rural Connecticut beginning October 20, Professor Raymond Burrows and Mrs. Rosa McHugh, an instructor in the department, are conducting a project on piano classes. This demonstration work with teachers, who will later continue the instruction, will be carried on among all fourth, fifth, and sixth grade pupils in a typical one-room school. These children are taught piano in classes of ten, with the schedule fitting into a flexible program arranged by the State Board of Education, and correlated with English, social studies, and other phases of the core curriculum.

At Steinway Hall, New York, October 2, Professor Burrows was chairman of a panel discussion for the New York Piano Teachers Congress on "Piano Instruction as a Fundamental in Music Education," and he was guest of honor at a luncheon in the Buckingham Hotel following the meeting.

For the annual Recreation Congress at the Hotel New Yorker October 13 to 17, Professor Harry R. Wilson served as leader of group singing; summarizer for the panel discussing music in the recreational program, and director of the Teachers College choir in a short concert before the Congress.

Professor Wilson was guest lecturer October 23 on choral music for the in-service program of the music teachers in the Baltimore public schools, and was guest conductor of a chorus of 300 high school students at the Tennessee Education Association conference in Knoxville, Thursday and Friday, October 30 and 31.

HOME ECONOMICS

Invited to serve as a member of the public relations council of the home economics in business group, American Home Economics Association, Professor Helen Judy Bond is also consultant for the Institute of International Education, representing the Association. She will, in addition, be director of the American Eugenics Society until 1950.

Professor Judy Bond addressed the members of the American Press Institute at the Columbia School of Journalism November 3, participating in a discussion on the content of the woman's page in newspapers.

The meetings of the textile committee of the American Society of Testing Materials, held at Philadelphia October 15 to 18, were attended by Professor Dorothy Houghton.

Professors Mary deGarmo Bryan and Orpha Mae Thomas, as well as Miss Alta Atkinson, Miss Marian Melby, Miss Marjorie Rhinehart, and Miss Helen Flynn of the institution management area and Teachers College cafeteria, traveled to Philadelphia for the American Dietetic Association's national meeting October 12 to 17. Professor Thomas was one of the New York State delegates in the House of Delegates, which transacts the business of the organization.

Professor Thomas is conducting a class in motion and time study as applied to institution management, one of the first quantity food preparation courses to be offered with this particular emphasis.

At a tea tendered to the students of the department by the faculty October 21, Mrs. Katharine Alderman, president of the American Home Economics Association, was guest of honor and speaker.

HEALTH EDUCATION AND PHYSICAL EDUCATION

Addressing Detroit public school teachers on October 18, Professor Clifford L. Brownell spoke on "The Best Years of Our Lives."

Professor Brownell is chairman of the committee on relations with the Armed Forces, American Association for Health, Physical Education, and Recreation.

Eleven teaching manuals written by Professor Brownell for use with his *Health of Our Nation* series were published in September by the American Book Company.

In a survey of the New Haven, Conn., public schools, Professor Herbert Walker was consultant for health and physical education, and special education.

"Trends in Health and Physical Education" was the topic of Professor Harry A. Scott's speech before the Connecticut Association for Health, Physical Education, and Recreation meeting in Bridgeport October 31.

In November, a report was published by the College Physical Education Association, *College Facilities for Health, Physical Education and Recreation*, the result of the work of a group under the chairmanship of Professor Scott.

From August 29 to September 18, Professor Marjorie Hillas served on the staff of the University of Toronto counselor training course in Algonquin Park, Ont., Canada.

Professor E. Patricia Hagman was appointed chairman of the service awards committee attached to the New York State Association for Health, Physical Education, and Recreation.

Division V

Nursing Education

Both Professors Mary E. Chayer and Frances Reiter spoke at the New York State Nurses Association and State League of Nursing Education convention at the Hotel Pennsylvania October 12 to 17. Professor Chayer stated that a complete re-evaluation of health procedures is needed to make best use of potential nurse power and declared that the emphasis which has been placed on hospitalization has resulted in too little stress on care for the chronically ill and the aged, and too little attention to a strong program of preventive health measures. Professor Reiter spoke on the preparation of nurses to meet changing concepts of medical care.

Grants amounting to $17,200 have been awarded to eight students for study in the new consultant program for advanced psychiatric nursing. Made available by the National Advisory Mental Health Council of the U. S. Public Health Service, the fellowships are a part of the national mental health program authorized by the Congress in 1946. Recipients will prepare for positions as consultants, administrators, supervisors and teachers in the mental health aspects of generalized nursing.

Professor Virginia Henderson spoke on "Preparation of the Nurse for the Effective Performance of Her Unique Function" at the South Carolina State Nurses Association convention in Anderson, S. C., October 10.

New staff members for the year include: Miss Ruth Gilbert, assistant professor in the advanced mental hygiene program; Miss Nelliana Best, instructor in cancer nursing; Miss Marion D. Cleveland, instructor in medical-surgical nursing; Miss E. Jean Hill, instructor in orthopedic nursing; Miss Dorothy Wilson, instructor in public health nursing, and Miss Mary Ann Tucek, assistant in the bacteriology laboratory. A research staff under grant from the W. K. Kellogg Foundation includes Misses Bernice E. Anderson, Mary E. Bond, Mary C. Connor, Edith Roberts, and Helen G. Schwarz, and Mrs. Catherine C. Collings, and, under grant from the National Foundation for Infantile Paralysis, Inc., Mrs. Doris H. Miller has a physics research fellowship.

New officers of the nursing education club are: Miss Lucy Blair, president; Miss Ruth Weidner, vice-president; Miss Kiyoko Yafuso, secretary; Mr. Cornelius Lynch, treasurer, and Miss Gertrude Nathe, program chairman.

The Library

Requests from foreign students for a list of educational journals which will serve classroom teachers in their homelands has led the library to issue *American Educational Journals: A Selection for Foreign Classroom Teachers.*

The newly-created post of foreign bibliographer and cataloger has been filled by Miss Denise Oudot, who arrived last spring from Paris to join the library staff.

Audio-visual services in the College are being administered by the library under the immediate direction of Mrs. Eva Epstein.

The browsing room, rental library, and all residence hall book services are now under the supervision of Mrs. June Metcalfe, author and book discussion leader who is serving as a reading counselor to students.

Professor Ethel M. Feagley, on leave until early December, has recently visited libraries in Ohio and Michigan.

Office of Field Relations and Placement*

The following list continues the appointments of Teachers College Alumni reported in the November *Record.*

Burke, Armand F. (T. C. Diploma 1947), instructor in English, State Teachers College, Brockport, N. Y.

Callicott, James Francis, teacher of mathematics, McLean, N. Y., Central Rural School.

Christopher, Willard N., teacher of physical education and athletic coach, Jefferson High School, Portland, Ore.

Craig, Evelyn (A.M. 1942), home economist, Armour & Company, Chicago, Ill.

D'Ascoli, Louis N. (A.M. 1947), teacher of health, Public Schools, Yonkers, N. Y.

De Witt, Florence (B.S. 1947), public health staff nurse, Seattle Visiting Nurse Service, Seattle, Wash.

Dunn, Dorothy, teacher of social studies, Patchogue High School, Patchogue, N. Y.

Eisenkramer, Henry E. (A.M. 1945), director, St. Louis Music University, St. Louis, Mo.

Enneis, Mary Frances (A.M. 1947), counselor, Florida State College for Women, Tallahassee, Fla.

Feman, Marvin Kenneth (A.M. 1947), director of instrumental music, Kalamazoo College, Kalamazoo, Mich.

Fites, Winifred Evelyn, teacher of intermediate grades, Long Beach, Calif., Public Schools.

Freiheit, Dorothy (B.S. 1942), teacher of art, Rye Country Day School, Rye, N. Y.

Frost, James A. (A.M. 1941), instructor in history, State Teachers College, Oneonta, N. Y.

Gates, Helen N., teacher of physical education, Brooklyn College of the City of New York, Brooklyn, N. Y.

Godbey, Margaret Lee (A.M. 1947), assistant professor of health and physical education, McMurry College, Abilene, Tex.

Goodman, Brenda Head (A.M. 1947), teacher of English, Hockaday School, Dallas, Tex.

Graham, Joseph D. (A.M. 1947), instructor in English and dramatics, Eastern Kentucky State Teachers College, Richmond, Ky.

Griffin, Warner G. (A.M. 1947), instructor in physical education, State Teachers College, Oneonta, N. Y.

Grossman, Seymour, teacher of English, Belleville High School, Belleville, N. J.

Heisler, Edmond H., teacher of English and history, and coach, The Haverford School, Haverford, Pa.

Heller, Barbara Jane, instructor in physical education, Ohio State University, Columbus, Ohio.

Hirst, Eric A., rural supervisor, Connecticut State Board of Education, Willimantic, Conn.

Holman, Alfred, Jr., head of department of English, New Jersey State Teachers College, Trenton, N. J.

Hooley, Agnes M. (A.M. 1940), associate professor of physical education, Texas State College for Women, Denton, Tex.

Huffman, Harry (Ed.D. 1947), associate professor of education, University of Oklahoma, Norman, Okla.

Jacobson, Edward S., core curriculum teacher, Junior High School, Peekskill, N. Y.

Jorgensen, Elin K. (A.M. 1934), associate professor of music, University of Kansas, Lawrence, Kan.

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*Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Field Relations and Placement. For initial registrations covering three years, no fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Joslin, Bernard F. (A.M. 1947), principal, Public School No. 3, Watervliet, N. Y.

Kaplan, Ethel D. (A.M. 1947), teacher of social studies, McLean Central Rural School, McLean, N. Y.

Kipperberg, Aurora (A.M. 1945), instructor in physical education, Olympic Junior College, Bremerton, Wash.

Kuhwarth, Madge E., instructor in education, San Diego State College, San Diego, Calif.

Lamont, Jean A. (B.S. 1945), kindergarten teacher, The Matheny School, Springfield, Ill.

Landis, Mildred M. (A.M. 1941), director of fine arts, State of New Hampshire, Concord, N. H.

Larsen, Lois Jean (A.M. 1947), instructor in history, Kansas State College of Agriculture and Applied Science, Manhattan, Kan.

Lawrence, Richard E. (A.M. 1947), teacher of social studies, Rye High School, Rye, N. Y.

Leahy, Virginia (A.M. 1947), core curriculum teacher, Oak Ridge High School, Oak Ridge, Tenn.

Loughran, Thomas J. (A.M. 1939), teacher of physical education, High School, Chappaqua, N. Y.

Mackenzie, Marlin Matheson, instructor in physical education, University of Virginia, Charlottesville, Va.

Mayer, Marilyn E., teacher of mathematics, Southold High School, Southold, N. Y.

McAllister, David (A.M. 1947), instructor in English, Edinburg Junior College, Edinburg, Tex.

McMahon, John Edward, Jr. (B.S. 1947), teacher of physical education, Great Neck Elementary School, Great Neck, N. Y.

Merriman, Marian, teacher of music and art, Parkwood School, Kalamazoo, Mich.

Nelson, Helge G., instructor in social science and commercial arts, New York Institute of Applied Arts, Brooklyn, N. Y.

Nista, Josephine (A.M. 1941), social investigator, New York City Department of Welfare, New York, N. Y.

Palmer, John T. (A.M. 1947), instructor in English, Mississippi Southern College, Hattiesburg, Miss.

Pauli, Kenneth W. (A.M. 1947), teacher of English and social studies, Grant Junior High School, Denver, Colo.

Philipp, Gertrude A., teacher of German and English, Bergen Junior College, Teaneck, N. J.

Pisano, Joy, teacher of physical education, New York Hospital, New York, N. Y.

Reid, Patricia Anne (A.M. 1946), instructor in history, Holy Family High School, Union City, N. J.

Scheidt, Pauline E. (A.M. 1941), primary teacher, Plandome Road School, Manhasset, N. Y.

Schweitzer, Elizabeth (A.M. 1947), instructor in physical education, State Teachers College, Cortland, N. Y.

Scott, Helen Elizabeth (A.M. 1947), instructor in English, Sedro-Woolley High School, Sedro-Woolley, Wash.

Shepherd, Louis Percival, associate professor of English, California Polytechnic School, San Luis Obispo, Calif.

Syrjala, John J. (A.M. 1947), instructor in English, Sampson College, Sampson, N. Y.

Townsend, Katharine B., teacher of Spanish, Tenafly High School, Tenafly, N. J.

Vett, John George, Jr. (A.M. 1941), professor of education and coordinator of field relations, State Teachers College, New Paltz, N. Y.

Virgilio, Edith, teacher of Spanish, Newark High Schools, Newark, N. J.

Walker, Cecile, director of guidance and teacher of English, Rehoboth Special School District, Rehoboth Beach, Del.

Walker, Frederick R. (A.M. 1947), director of instrumental music, Ashtabula Harbor Schools, Ashtabula, Ohio.

Weidmann, George P., teacher of German, mathematics, and coaching, McBurney School, New York, N. Y.

Whitfield, Powell, associate professor of education, Georgia Teachers College, Collegeboro, Ga.

Williams, Margaret June, teacher of home economics, Houlton High School, Houlton, Me.

The following recent appointments of Teachers College Alumni are reported by the Office of Field Relations and Placement.

Alden, M. Priscilla (A.M. 1940), assistant professor of physical education, Plymouth Teachers College, Plymouth, N. H.

Allyn, Lucia Greenman (A.M. 1947), instructor in science, St. Mary's Hospital School of Nursing, Tucson, Ariz.

Altena, Juliana E. van Regteren (Ed.D. 1947), professor of education, Yankton College, Yankton, S. D.

Amerpohl, Ruth Aileen, kindergarten teacher, Public Schools, Hinsdale, Ill.

Ames, Barbara, instructor in tennis and swimming, Texas State College for Women, Denton, Tex.

Archard, Merrill H. (A.M. 1947), director of physical education, Public Schools, Ogdensburg, N. Y.

Bahnmuller, Marie C., teacher of history, High School, Pleasantville, N. Y.

Bain, Chester A., instructor in history, Idaho State College, Pocatello, Idaho.

Bainbridge, George, administrative assistant, Farleigh Dickinson Junior College, Rutherford, N. J.

Baird, Clyde Ray (A.M. 1947), vocational guidance counselor, Kansas State Teachers College, Pittsburg, Kan.

Baker, Harry Stanley (A.M. 1942), director of physical education and coach, High School, Keyport, N. J.

Ballare, William Albert (A.M. 1936), instructor in English, New Jersey State Teachers College, Upper Montclair, N. J.

Barney, Maria Ines (A.M. 1946), assistant professor of Spanish and French, Stephen F. Austin State Teachers College, Nacogdoches, Tex.

Barringer, Benton (Ph.D. 1925), psychological counselor, Brooklyn College, Brooklyn, N. Y.

Bauer, Frederick E., Jr. (A.M. 1947), instructor in economics and mathematics, Mount Hermon School, Mount Hermon, Mass.

Baumrind, Raymond (A.M. 1947), teacher of Spanish, Madison Junior High School, Newark.

Baxter, Tompsie (A.M. 1930), supervisor of elementary schools, Langhorne-Middletown School District, Bucks County, Pa.

Beatty, Thelma Clyde (A.M. 1947), instructor in clothing and textiles, Clark College, Atlanta, Ga.

Begg, William Roy (Ed.D. 1947), teacher of French and European history, St. Mark's School, Southborough, Mass.

Boynton, Holmes (A.M. 1940), chairman of mathematics department, Northern Michigan College of Education, Marquette, Mich.

Bradle, E. Wesley (A.M. 1942), principal, Center School, Stratford, Conn.

Brennan, Margaret Jane (A.M. 1943), instructor in foods, Cornell University, Ithaca, N. Y.

Bressette, Frederick Kurtis, teacher of English, Drury High School, North Adams, Mass.

Brittan, Margaret Roper (A.M. 1946), assistant professor of music education, Teachers College of Connecticut, New Britain, Conn.

Brong, Ruth Evangeline (A.M. 1943), territorial supervisor, eastern area, Metropolitan Life Insurance Company, Nursing Service, New York, N. Y.

Brown, Le Roy, director, University of Alabama Center, Gadsden, Ala.

Browne, Wilda E., teacher of home economics, High School, Dumont, N. J.

Buchanan, Mary G. M. (A.M. 1944), supervisor of speech, Burnt Mills School, Pluckemin, N. J.

Bunn, Esper Nan (A.M. 1947), junior public health nurse, District Health Office, Chapel Hill, N. C.

Buonaguro, Louise D. (A.M. 1944), instructor in physical education, Long Island University, Brooklyn, N. Y.

Calfee, Hazel S. (A.M. 1945), teacher of social studies, Junior High School, Petersburg, Va.

Caughran, Kathryn A., teacher of home economics, High School, Boonsboro, Md.

Chace, Edward Kip, supervising principal, Lower Camden County Regional High School, Clementon, N. J.

Clark, Robert E., teacher of eighth grade, Island Park School, Island Park, N. Y.

Coleman, Walter E. (A.M. 1941), teacher of biology, Benjamin Franklin High School, New York, N. Y.

Connett, Theodore R. (A.M. 1937), headmaster, Brookside School, Montclair, N. J.

Cornell, Francis G. (Ph.D. 1936), professor of education, University of Illinois, Urbana, Ill.

Cothren, Rose Ellen Tye (A.M. 1947), teacher of dressmaking, Julia Ward High School, New York, N. Y.

Cowen, Genevieve (A.M. 1944), instructor in piano, Transylvania College, Lexington, Ky.

Crosby, Maurice H. (A.M. 1923), teacher of mathematics, Scarborough, N. Y., School.

Cukro, George J. (A.M. 1941), instructor in physical education and coach, Rutgers University, Newark, N. J.

Dailard, Ralph C. (Ph.D. 1939), deputy superintendent of schools, City Schools, San Diego, Calif.

Davenport, Leonard S. (A.M. 1939), instructor in science and mathematics, State Teachers College, Cortland, N. Y.

Davis, Spencer H. (A.M. 1945), instructor in public speaking, Rhode Island State College, Kingston, R. I.

Dinsmore, Bruce H. (A.M. 1941), instructor in biology, algebra, health and physical education, State Teachers College, Clarion, Pa.

Doe, Arthur F., guidance counselor, Fifth Street Junior High School, Bangor, Me.

Donovan, Harry J. (A.M. 1943), principal, Grove Street School, Irvington, N. J.

Dougal, Anthony (A.M. 1940), head trainer and coach, Dartmouth College, Hanover, N. H.

Dowding, David H. (A.M. 1947), teacher of social studies, High School, Nutley, N. J.

Du Coty, Maxine L. (A.M. 1947), teacher of physical education, Modesto Junior College and Modesto High School, Modesto, Calif.

Du Mont, Dorothy (A.M. 1947), nursery school teacher, Hansel and Gretel School, New York, N. Y.

Eisele, Heinz (A.M. 1947), assistant supervisor of health and physical education, Public Schools, Poughkeepsie, N. Y.

Farina, Albert M., instructor in health and physical education, Brooklyn College, Brooklyn, N. Y.

Faust, Edwin M. (A.M. 1946), instructor in modern languages, West Virginia Institute of Technology, Montgomery, W. Va.

Feinstein, Anita J. (A.M. 1947), teacher of mathematics, High School, Farmingdale, N. Y.

Feldhusen, Marie (A.M. 1931), assistant professor of clothing and textiles, St. Olaf College, Northfield, Minn.

Finkenthal, Charlotte C., teacher of German, Williamsport Dickinson Seminary and Junior College, Williamsport, Pa.

Fiske, Fremont W. (A.M. 1946), superintendent of schools, Washington West District, Waterbury, Vt.

Foster, Evelyn Mosier (A.M. 1947), assistant professor of music, University of Texas, Austin, Tex.

Foster, Stanley V. (A.M. 1947), instructor in physical education, Willoughby Union High School, Willoughby, Ohio.

Friedrich, Kurt, assistant professor of education, Adelphi College, Garden City, N. Y.

Ganley, Albert C., instructor in social studies, Manhasset High School, Manhasset, N. Y.

Gersten, Robert S. (A.M. 1947), teacher of physical education, Public Schools, Long Beach, N. Y.

Gillett, Monie L., teacher of art, High School, Towson, Md.

Giunta, Gasper J. (A.M. 1947), teacher of English, Public School No. 145, Brooklyn, N. Y.

Glass, Arthur O. (A.M. 1947), instructor in biology, sociology, psychology, and health, State Teachers College, Montgomery, Ala.

Glynn, Rosemary P. (A.M. 1946), director of student union, Adelphi College, Garden City, N. Y.

Goodman, Helaine (B.S. 1944), nursery school teacher, Mollie Perlbinder Sunshine Nursery School, Bronx, N. Y.

Grierson, Harry W. (A.M. 1947), teacher of mathematics and machine shop, and assistant in administration, Spaulding High School, Rochester, N. Y.

Grodberg, David A. (A.M. 1947), vocational counselor, Vocational Advisory Service, New York, N. Y.

Haiko, Stanley J., teacher of social studies, School No. 4, Linden, N. J.

Hannigan, Mary T. (A.M. 1946), assistant professor of physical education, Alabama Polytechnic Institute, Auburn, Ala.

Harper, A. Edwin, Jr., junior vocational counselor, Vocational Counseling Service, New Haven, Conn.

Harrington, Elinor (A.M. 1946), teacher of English, High School, Hornell, N. Y.

Hevener, Robert E. (A.M. 1947), teacher of English, science, and physical education, High School, Woodstock, Va.

Hinckley, Rachel (A.M. 1941), instructor in language arts, music, and fine arts, Brooklyn College, Brooklyn, N. Y.

Hodgens, Sarah Evelyn (A.M. 1947), instructor in voice, Elon College, Elon College, N. C.

Holy, Russell A. (Ph.D. 1935), associate professor of education, University of Kansas City, Kansas City, Mo.

Hoy, George Carrol (A.M. 1947), instructor in music, Benicia High School, Benicia, Calif.

Hugg, Alan E., adult education specialist, University of Florida, Gainesville, Fla.

Hughes, Dola, teacher of third grade, Greer School, Hope Farm, N. Y.

Hunt, Byron I., instructor in retailing, Adelphi College, Garden City, N. Y.

Hunt, Vila V. (A.M. 1930), teacher of primary grades, Paia School, Maui, T. H.

Iverson, Edward E. (A.M. 1945), director of instrumental music, Junior and Senior High School, Redlands, Calif.

Jacobs, Henry (A.M. 1947), instructor in chemistry and physics, Senior High School, Corpus Christi, Tex.

Jansen, Richard B. (A.M. 1947), director of recreational therapy, Southard School, Topeka, Kan.

Jenkins, Leo Warren (A.M. 1937), dean, East Carolina Teachers College, Greenville, N. C.

Jensen, Fay A., instructor in speech, Ithaca College, Ithaca, N. Y.

Johnson, Glen (A.M. 1930), psychologist, V.A. Guidance Center, Montana State College, Bozeman, Mont.

Jones, George Elwood, Jr. (A.M. 1947), instructor in English, Russell Sage College, Troy, N. Y.

Jones, Harold D., librarian, Fairmont State College, Fairmont, W. Va.

Jones, Jacob H. (A.M. 1942), elementary supervisor, State Teachers College, Mansfield, Pa.

Jones, Laura Katherine, teacher of physical education, Lowell Public School, Santa Ana, Calif.

Jones, Mildred J. (M.S. 1947), teaching assistant in food study, University of California, Berkeley, Calif.

Jutten, Jessie B. (A.M. 1947), instructor in physical education, Northwest Missouri State Teachers College, Maryville, Mo.

Kerrigan, Elizabeth J. (A.M. 1946), teacher of business education, Sewanhaka High School, Floral Park, N. Y.

Kessler, Clara (A.M. 1941), teacher of English, Eastern Washington College of Education, Cheney, Wash.

King, Margaret A., teacher of third and fourth grades, Public School, Tamworth, N. H.

Kraft, Barbara Frances (A.M. 1946), instructor in art, High School, Decatur, Ill.

Kretchmar, Robert T. (A.M. 1946), assistant professor of physical education, Ohio State University, Columbus, Ohio.

Lai, William T. (A.M. 1947), teacher of physical education and coach, Long Island University, Brooklyn, N. Y.

Lancaster, Christine (A.M. 1942), third grade critic teacher, State Teachers College, Edinboro, Pa.

Leaman, Esther (A.M. 1944), dietitian, Hunter College, New York, N. Y.

Le Caro, Ruth A. (A.M. 1944), guidance counselor, Central School, Sidney, N. Y.

Leifeste, Bertha V. (A.M. 1932), instructor in education, National College of Education, Evanston, Ill.

Lituchy, Anita (A.M. 1941), teacher of physical education, Benjamin Franklin Junior High School, Yonkers, N. Y.

Lynn, Vela, instructor in history, Bluefield College, Bluefield, Va.

Mackey, Alberta (A.M. 1943), instructor in home economics, Public School No. 1, Hillsdale, N. J.

MacWilliam, Norman Dana, teacher of history and civics, North Quincy High School, Quincy, Mass.

Malis, Laura (A.M. 1947), kindergarten teacher, Hilltop School, Bronx, N. Y.

Marble, Samuel D., president, Wilmington College, Wilmington, Ohio.

Marshall, Ann Pennock (A.M. 1942), teacher of sixth grade, Punahou School, Honolulu, T. H.

McCourt, Harold (A.M. 1942), director of guidance, Public Schools, Pleasantville, N. Y.

McGee, George A., director of guidance, Croton-Harmon High School, Croton, N. Y.

Milleff, Tzveta (A.M. 1930), teacher of science, Leonard School for Girls, New York, N. Y.

Modlin, Ruth (A.M. 1939), seventh grade critic teacher, Campus School, State Teachers College, Oswego, N. Y.

Mooney, Gertrude X. (A.M. 1934), associate professor of physical education, University of Miami, Coral Gables, Fla.

Morrison, Mary E. (A.M. 1941), teaching supervisor of religious education, Public Schools, Decatur, Ill.

Murphy, Jeanne S. (B.S. 1941), administrative assistant and surgical supervisor, New Haven Hospital, New Haven, Conn.

Nesha, Stephen F., teacher of science and coach, Rowe High School, Conneaut, Ohio.

Ness, Norman (B.S. 1947), basketball coach and athletic instructor, Rockefeller Center, Inc., New York, N. Y.

Noah, Madeline (A.M. 1946), instructor in speech, Florida State College for Women, Tallahassee, Fla.

Noland, Florence D., teacher of mathematics, The Helen Bush School, Seattle, Wash.

Ockershausen, George F. (A.M. 1940), instructor in physical education, State Teachers College, East Stroudsburg, Pa.

Ohl, Robert Austin, instructor in English and history, Harrisburg Academy for Boys, Harrisburg, Pa.

Parrott, Helen E. (B.S. 1942), teacher of fifth grade, Barnard School for Girls, New York, N. Y.

Patterson, Elizabeth M. (A.M. 1940), associate professor of home economics, Madison College, Harrisonburg, Va.

Pennell, Alfred R. (A.M. 1938), teacher of mathematics, Manlius School, Manlius, N. Y.

Phillips, Laura M. (A.M. 1944), teacher of fourth grade, Massapequa School, Massapequa, N. Y.

Pinco, Robert, instructor in science, Hagerstown Junior College, Hagerstown, Md.

Plotkin, Sylvia (M.S. 1947), clinic dietitian, Beth Israel Hospital, New York, N. Y.

Porcher, Katrina M. (A.M. 1946), assistant professor of home economics, Agricultural & Technical College of North Carolina, Greensboro, N. C.

Price, Geraldine (B.S. 1947), assistant instructor in science, College of Nursing and Health, University of Cincinnati, Cincinnati, Ohio.

Pritchett, Mary M. (A.M. 1928), assistant professor of foods, Texas Technological College, Lubbock, Tex.

Prunhuber, L. F. (A.M. 1940), instructor in biology, Hofstra College, Hempstead, N. Y.

Quinn, Elizabeth, instructor in dramatics, College of New Rochelle, New Rochelle, N. Y.

Quirk, John F., teacher of social studies, Croton-Harmon High School, Croton, N. Y.

Raisis, Anthony (A.M. 1947), teacher of music, High School, Springfield, Mass.

Ransom, William L., administrative assistant, Public Schools, Suffern, N. Y.

Reed, Clint Elmo (A.M. 1947), instructor in music, Arthur Jordan Conservatory of Music, Indianapolis, Ind.

Reed, Helen C. (A.M. 1947), first and second grade critic teacher, Antioch School and Antioch College, Yellow Springs, Ohio.

Reinhardt, Philecta (A.M. 1947), teacher of English, Central High School, Charlotte, N. C.

Reynolds, Ruth Trotter (A.M. 1946), junior assistant to the Dean, Hunter College, New York, N. Y.

Rupert, William Joseph, High School, Oakwood, Ohio.

Saxe, Carl H. (Ed.D. 1947), clinical psychologist, Sawtelle General Hospital, Los Angeles, Calif.

Schaffer, Robert William (A.M. 1947), teacher of mathematics, Rundlett Junior High School, Concord, N. H.

Schattschneider, Meta (A.M. 1943), assistant professor of arts and crafts, New Mexico Highlands University, Las Vegas, N. M.

Schlesinger, Pauline K. (A.M. 1944), teacher of speech, Board of Education, Department of Speech Improvement, New York, N. Y.

Schloss, Milton, instructor in geology and geography, Potomac State School of West Virginia University, Keyser, W. Va.

Schoenberg, Virginia (B.S. 1947), teacher of fifth grade, Public School, Englewood, N. J.

Sharp, Mary Frances (A.M. 1941), second grade critic teacher, State Teachers College, Mansfield, Pa.

Shell, Ralph Emerson (A.M. 1947), teacher of instrumental music, City Schools, Findlay, Ohio.

Shepherd, David L. (A.M. 1947), assistant director of guidance, High School, Glen Burnie, Md.

Sherman, John P. (A.M. 1947), teacher of English, Technical School, Putnam, Conn.

Shipley, Clifford B. (Ed.D. 1947), associate professor of business education, Bowling Green State University, Bowling Green, Ohio.

Slater, Leland S. (A.M. 1947), instructor in chemistry, Bergen Junior College, Teaneck, N. J.

[*Continued in January* RECORD]

Alumni Activities

BEGINNING October 1, **HOMER KEMPFER** (Ed.D. 1941) became specialist for general adult and post-high school education with the U. S. Office of Education in Washington. Dr. Kempfer, formerly regional director of adult education in the New York State Education Department, has been writing a weekly column, "What Buffalo Thinks," for the past year. This column, which ran in the *Buffalo Evening News*, was a poll of city opinion.

NEW acting director of the Demonstration School and acting head of the department of education, State Teachers College, Jersey City, N. J., is **THOMAS J. FRANCIS**, former teacher at the Horace Mann-Lincoln School.

LITA KORBE, former graduate student until recently engaged in research work in New York, has been appointed associate professor of nursing education and director of public health nursing at the University of Georgia, Athens. She has been a staff nurse at the Mulberry Health Center, New York, and in the tuberculosis and case work program of the Community Service Society, New York, where she later served as assistant supervisor of staff nurses. After her return from teaching duties overseas in the Army Nurse Corps, she was educational officer and assistant director of the Bridgeport, Conn., Visiting Nurse Association.

APPOINTED to the recently-created post of director of physical education, **ROBERT W. BERGSTROM** (A.M. 1942) will supervise the entire San Diego, Calif., city school system's development program in that field.

BOTH the Schofield School and Schofield Junior College, located at Schofield Barracks, Hawaii, come under the jurisdiction of **F. DEAL CROOKER** (Ed.D. 1940), who is president of the College and head of the School. The student body of the Junior College, which was opened in September primarily for men in the Armed Forces located at Schofield Barracks, Pearl Harbor, Fort Shafter, Naval radio and Army radio stations, and other military establishments on the island of Oahu, consists of men and women from approximately 40 states, England, Canada, Hawaii, the Philippines, and Puerto Rico. The Schofield School, with an enrollment of around 1000 students, includes a day care center, a five-year kindergarten, an elementary school, and a junior and senior high school.

FORMERLY associate dean at City College, New York, **VICTOR B. JOHNSON** (A.M. 1941) has been named associate dean for men and assistant professor of education at Clark University, Worcester, Mass. Mr. Johnson served 37 months in the Army as a security and intelligence officer with the Army Airways Communications System, and was separated from the service in 1945 as a captain after 30 months in Alaska.

TEACHERS College people who will encounter one another as new appointees at the State Teachers College, Towson, Md., this fall include: **EARLE T. HAWKINS** (A.M. 1928), president; **LOUIS T. COX, JR.** (A.M. 1947), science department; **MARY R. ROBINSON**, former graduate student, art department; **AGNES CARLSON**, former graduate student, Lida Lee Tall Campus School, and **ELSIE P. WASSON** (A.M. 1942), dietitian.

EMILE LIBRESCO (A.M. 1947) has been appointed assistant professor in the economics department at the University of Vermont, Burlington. He had combat experience with the AAF during the war, and also held posts as information and education officer and publications editor for the Air Forces and as news orientation instructor for the Army. During 1942-43, Mr. Libresco served as an economic analyst in connection with foreign funds control in the U. S. Treasury Department. He has been a vocational rehabilitation training officer with the Veterans Administration since 1945 for the City College Research Laboratory and the Board of Education, New York, N. Y.

AMONG eleven new members of the faculty of Texas Technological College, Lubbock, is WILLIAM RAFFANIELLO, former Teachers College graduate student.

INSTRUCTOR in a 15-week course on "Development and Improvement of Reading Abilities" for the Chelsea, Mass., teachers is KATHERINE G. STAINS (A.M. 1935) of the faculty of Lesley College, Cambridge, Mass. Miss Stains has made a study of elementary school problems not only in this country, but in Mexico, South America, England, France, Germany, Belgium, Switzerland, Italy, and the Hawaiian Islands.

DONALD FRIST, former graduate student, set a record in the *Chicago Tribune's* American Fashions competition by winning a prize for the seventh consecutive year. Mr. Frist, a Clinton, Ind., resident, was among 39 winners of $50 preliminary prizes, chosen from 7,480 contest entries.

As a teacher of social studies, English, and mathematics at the grammar school, DONALD KURSCH (A.M. 1941) has joined the staff of the Westbury, N. Y., public schools.

FORMERLY head of the child care and family relations department of the college of home economics, Syracuse (N. Y.) University, FRANCES DWYER, former graduate student, is teaching "Psychology for Women" and "Psychology of Family Life" at the Syracuse Adult Evening High School.

NUTRITIONIST for the National Dairy Council regional office in New York City for the past two years, MARCELLA BEFFA (M.S. 1945) is now in charge of the dietary department at the University of Beirut Hospital, operated in Lebanon by the Near East College Association.

"CHAPTER and Inter-Chapter Preparedness and Functions in Disaster" was the topic of a round table discussion led by BEATRICE KETCHUM CABELUS, former graduate student, at the annual regional conference of thirty-four Maine Red Cross Chapters at Poland Spring October 21. Mrs. Cabelus was disbursing officer in the Texas City disaster.

SUPERVISOR of the nursery schools at Vet Village of Oklahoma A. and M. College, Stillwater, is ESTHER SKEELS (A.M. 1930), who was formerly in charge of the department of child development at Utah State College, Logan.

TEACHER of music at several Pennsylvania and New York schools in the past, ANN HAUSMAN DAVIS (A.M. 1947) is now supervisor of music in Poultney, Vt., schools.

D. ELIZABETH COLEMAN, former graduate student, once director and teacher of the community nursery school of the South Presbyterian Church in Dobbs Ferry, N. Y., is new instructor of education and connected with the nursery school at Wheaton College, Norton, Mass.

"RICH Sources of Classroom Materials," an article by ETHEL MAY WARDE (Ed.D. 1945) appeared in the February, 1947, issue of *The Pilot,* publication of the Elementary Classroom Teachers' Association of the District of Columbia.

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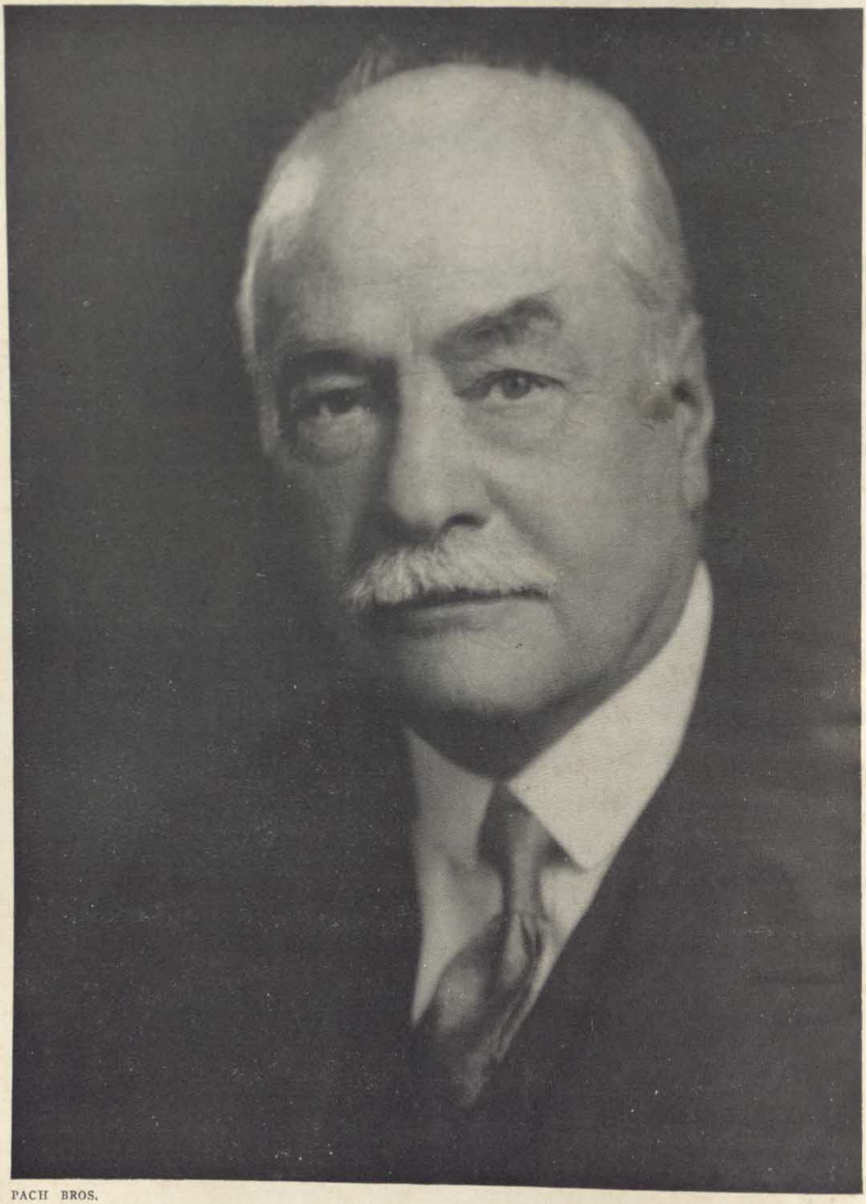

PACH BROS.

NICHOLAS MURRAY BUTLER

VOL. 49, NO. 4 JANUARY, 1948

TEACHERS COLLEGE RECORD

Nicholas Murray Butler, 1862-1947

THE Trustees of Teachers College record with profound sorrow the death on December 7, 1947, of Nicholas Murray Butler. He was President of the College from 1886 to 1891, President ex-officio from 1902 to 1945, member of the Board of Trustees from 1902 to 1945, and Trustee Emeritus from that time until his death.

As a young student in Columbia College, President Butler had come to know and admire Frederick A. P. Barnard. He was impressed by the famous Barnard reports, in which the fiery and forward-looking President of Columbia reviewed annually the pressing educational problems of his day and made statesmanlike and unfortunately too-often unpopular recommendations for future action. In the series dealing with such subjects as Higher Education of Women, the Elective System, Professional Education for Librarianship, the New University, Barnard devoted two reports to the need of developing education as an art and science and to university preparation of teachers. These reports, milestones in American educational history, appeared in 1881 and 1882, during President Butler's junior and senior years as an undergraduate student, and the young potential leader made their achievement part of his life's ambition. In France, Germany, and Britain, as well as in graduate studies in New York, he refined these ideas; he tested them out; he resolved on a course of action.

After the doctorate, as a young professor he began courses of instruction in education for teachers; and he even permitted some women teachers to occupy inconspicuously seats in the rear of the Columbia classrooms on Madison Avenue. Vitally interested in public education (he never believed in boarding schools, nor did he put much reliance in any kind of private school), active as a member of the National

Education Association and its president in 1895, with close relationships with the New York City and Paterson public schools, he became in the later 1880's what today we would call a "progressive" educator. As a result of the great interest aroused by the Swedish exhibit at the Centennial Exhibition in Philadelphia in 1876, he was a leading spirit in the Industrial Education Association; he was also one of a group interested in reforming the New York public schools; and these two interests, coupled with his teaching of Education in Columbia, joined in the creation of The New York College for the Training of Teachers, later to be called simply Teachers College, a simplification which was suggested by Dr. Butler himself. He served as President of Teachers College until 1891.

The writings and reports of President Walter A. Hervey testify to the relations of the young College with the young Columbia professor up to 1897; and similar publications by Dean James E. Russell reveal the relations of the College with Dr. Butler from 1897 to 1902 as Dean of the Faculty of Philosophy and until 1927 as President of the University. He continued by countless acts to reveal his faith in public education, his hope for school improvement, and his ambition for the development on a university level of the science and art of education.

To the present Dean, the passing of President Butler means the end of a relationship that was almost that of a father and son. When he was a young boy in high school, he was guided by President Butler on choice of college and selection of an educational program. As a graduate student he received from the great President personal counsel and guidance, even to particular suggestions about his Doctor's dissertation and foreign travel. Each post that he was offered was probably with Dr. Butler's connivance, and was accepted after his advice. When he returned to Teachers College as a professor (while Dean James E. Russell was still in office) the offer was made by the President of the University and all the conditions were set by him. The President was always available for consultation, and his advice was wise and valuable.

President Butler was interested in helping the young. His concern was how to help them, not only to avoid making the same mistake twice, but if possible to organize life to reach full potentialities. As an evidence of this concern, the present Dean of Teachers College wishes to add this personal experience.

Several years ago, President Butler called me to his office. He told me that President Elliott of Purdue was about to bring out his (President Butler's) reports in a special edition, edited and organized so as to avoid duplication. Dr. Butler thought that this would be appropriate if at the same time President Barnard's reports were also edited and issued. Dr. Butler stated that his own reports in no way compared with those of Dr. Barnard. He told me that he was very busy, that he wanted to edit those reports himself, but that he could do it only if I would help him. This I promised gladly.

So one summer I spent part of my time, for a month or so, in rereading the Barnard reports, in clipping and in cutting, and then submitted to Dr. Butler a typed summary of the reports, suggesting what to include and exclude. All this was in very rough form.

A long time later I received on my desk an envelope of page proof. It was not galley proof, but page proof, an indication that the publication was very far advanced. In some respects it was according to my suggestions, in some respects not. But I noted on the title page that I was listed as editor, with no reference to the obvious work of Dr. Butler. I then called Dr. Butler on the telephone and told him that in no sense was I the editor, and I did not deserve the credit. He told me that this would be corrected.

But the final decision was revealed to me only when the bound copy came to my desk, which, as can be seen, gives all the credit to me.

That was Nicholas Murray Butler.

The death of Dr. Butler marks the end of an era for Teachers College. We have lost one of our founders, our guide, our friend. May we have his courage and devotion and sacrifice and the capacity for plain hard work, to the end that we may keep his example alive and his ideals in process of realization.

WILLIAM F. RUSSELL, *Dean*

Size and Selectivity*

WILLIAM F. RUSSELL

DEAN OF TEACHERS COLLEGE

WHEN James Earl Russell retired as Dean of Teachers College in 1927, he left to the incoming administration an institution at the peak of its development. Enrollment was high; finances were sound; a building program had been completed; libraries and laboratories were well equipped; there was a distinguished faculty; and former students were occupying positions of leadership not only in the United States, but in most countries of the world.

The hope of Grace Dodge for a new school and a better teacher and neighborhood worker, in order that children might be better fed, clothed and sheltered, that women might become better homemakers and wage earners, that families might be reared in happy and God-fearing homes; the hope of the Dean Emeritus that there might be a practical school—less bookish—under a staff professionally educated, that science and philosophy might be applied to the problems of education, that the problem of the poor, backward, and underprivileged might receive equal attention with the favored, that education might serve as an instrument of national development; the hope of V. Everit Macy—an outgrowth of his Quaker upbringing—that new teachers and new schools might not only serve to repair the ravages of past wars, as in our southern states, but might also bring international understanding and good will: all these hopes were in process of substantial realization by the Teachers College of 1927.

For about three years thereafter the new administration enjoyed what is now looked back upon as a period of prosperity. Although standards for admission were steadily being raised and work on lower levels abandoned in favor of the more advanced, students continued to come in large numbers and efforts were made to maintain the successful procedures of the past. Some new enterprises were undertaken. But the depression of 1929, with a delayed impact, had its full effect upon the Colleged by 1931; there were three years of severe recession, followed by four years of partial recovery. This first cycle of anxiety, storm, and stress was followed by a second—during World War II—when enrollments again dropped, when income from all sources dipped lower, when many expenses mounted and deficits increased. The courage, devotion, and sacrifice of Trustees and Faculty, and the team play of every person connected with the institution, brought the College through these two cycles with undiminished power and vigor. It is idle to make comparisons. Probably no institution could remain at the level to which the genius and fire of the Dean Emeritus brought it, but within a score of years Teachers College has replaced an entire faculty and is carrying on, still meeting the aims of its founders; and its students still take over posts of leadership both here and abroad.

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*Report of the Dean of Teachers College to the Trustees for the Academic Year Ending June 30, 1947.

At the moment, despite greater selectivity in admission procedures, the enrollment is at an all-time high. We have about 8,000 students in each the Winter and the Spring Session; and what is especially significant, a smaller proportion of veterans under government subsidy than in most colleges and universities. In fact, our enrollment is nearly as high as it ever was, without including a single veteran. Students from foreign lands are now coming to the College as they did in the 20's and 30's; subsidies for research projects and advanced training programs are again being received. Anxiety for support of a basic program is now giving way to planning. For now is the time to assess the past and present and chart the course for future development.

There are conditions in the present College, however, which are disquieting as one considers the building of a proper future program. Classes are too large. Some basic professional courses, on a high level, contain as many as one hundred students, or even more. Some students, owing to peculiarity of their programs, never find themselves in a class small enough to permit personal attention. As the enrollment has grown and the general level of previous academic preparation has increased, an abnormal proportion of students on the high levels has resulted. One professor reports that 40 students are seeking to work with him as chief adviser in a program leading to the Doctor's degree—an obviously impossible task. Certainly we are far distant from Mark Hopkins and the log; and those in charge of social affairs report that in leisure periods many of our students cannot find even a log on which to sit. Professors, zealous and eager, and to be candid, thrilled with the numbers of students who come to their classes, nevertheless cannot do justice to students. The truth is that at the College today almost all classes are filled to the capacity of the lecture room. Registration is conducted in somewhat the same manner that Pullman car reservations are obtained. Obviously the College is understaffed, and I venture to assert that few university buildings in the United States are used to so high a maximum of efficiency. To find as many students in proportion to the number of professors and square feet of floor space, one would have to go to the European universities, where the same crowded conditions or worse obtain.

The obvious remedy for such a condition is to cut down the size of the institution. The argument runs as follows: You have a relatively small endowment; and the income from even that small endowment is about half what it used to be. Your buildings are of course limited in size; and you will not be able to build new buildings for some time to come. Your faculty is limited in number, and with the demand for professors all over the country, and with the development of publicly supported institutions of higher learning, you cannot expect to hold your place in the long run. Look at one of the state universities this year. It received for the biennium 1947-49 the sum of 126 million dollars. What private institution can in the long run compete with an annual budget of as much as 63 million dollars? Friendly critics ask me when we are going to make Teachers College a selective institution and concentrate the income from our endowment on a few able leaders. Other institutions have followed that course. One important university has limited its enrollment in education to fifty persons. Another has frankly stated that it wishes to train only educational scientists of the highest order, and no others need apply.

Furthermore, there are members of our Faculty and other friendly critics who are worried about the nature of our enrollment. There was a time, they say, when Teachers College was attended largely by students who came full time; now at least two out of three, even counting the veterans, are persons employed somewhere within 100 miles of the College, who come for late afternoon, evening, and Saturday morning classes. They do their college work on the margin of their time. They are tired from their day's work when they come to class. They cannot have personal conferences with the professors; they cannot receive proper guidance; they cannot do proper work in library or laboratory. Teachers College, they say, is mainly an extension division. Even the full-time students are not like students in law and medicine, who spend three, four, or more years in full-time study. Your full-time students come for only one year, or even one semester at a time, on short leave of absence from their regular posts. How can you expect to build real professional preparation in the margin of the time of students whose minds must naturally be on their main jobs? Teachers College, they say, should cut down its student body to include only a small number of full-time students of proved ability. It should cut down its faculty to the number needed to care for this group of possibly 500 chosen potential leaders. Rent the buildings not needed; concentrate on the few.

In addition, our critics say, Teachers College accepts a good many students who, either because of inadequate command of English or because of inadequate or different standards in the place of their upbringing, probably would not rate high on educational aptitude tests. In this category would be included students from certain other lands who come to the College in fairly large numbers; and certain American students from sections where educational opportunities until recently have not been what they should. Admittedly there are always students in Teachers College in the Summer Session who, through no fault of their own, have basically inadequate preparation in fact, although on paper their credentials meet the standard and in their own communities they occupy positions of leadership. Critics believe that Teachers College should exclude such students. If they cannot meet standards of leading graduate schools they should be excluded.

The net result of such an analysis would be for Teachers College to adopt a different practice within the next ten years. Limit the enrollment to 500 students. Take the endowment and add to that what might be gained by renting the Horace Mann Building, Thompson Gymnasium, Macy Annex; sell Seth Low Hall, Bancroft, Grant, and Sarasota. All this might yield $250,000 to $300,000 a year—about $500 to $600 per student. Then concentrate on the select few. If the students were to pay tuition of $500 to $600 a year, there would be an annual budget of from $500,000 to $600,000.

To those unfamiliar with college finance, such a sum might appear adequate. Those who have any understanding of the problem know that financially such a plan would be impossible. It would require the income on at least 25 million dollars in addition properly to finance such a scheme. Such an endowment should not be impossible to secure, provided that the American public understood the situation and came to realize the worth of the work of the College to our country as a whole. I believe the College has saved the American people many times 25 million dollars as a result of its activities. I would suggest that the discoveries in vitamins, the savings effected in the planning and construction of school buildings, the development of child health, the efficiency of the military testing programs—even the repercussions of its work on industrial personnel management—have alone had value to the American people of many times 25 million dollars.

If Teachers College is ever to adopt such a practice, now is the time. More students wish to come to our doors than we can accommodate. Now, if ever, is the time to make a selection. Now is the time—before we have made too many long-term commitments; before a considerable number of young professors have established permanent tenure rights; before the institution has become accustomed to recent higher levels of expenditures.

Such proposals deserve the most serious consideration. They should be considered negatively, since it is obvious that Teachers College cannot maintain its place in American education, and properly prepare its students for competent service, with overworked professors, inadequate supervision, insufficient equipment, and crowded lecture halls, laboratories, and libraries. These proposals should be considered positively as well, for unless Teachers College renders real service to education in the United States and other countries—and service of a type that other institutions do not or cannot render—it has no justification for continued existence.

But the plan to cut Teachers College down to a few hundred full-time students is not only unwise from a financial point of view. Upon examination it appears to be unwise educationally. One comes to this conclusion from the following facts.

The purpose of Teachers College is to improve the education of teachers and other persons working in schools, in colleges, and in other means of education, and thus, in turn, to improve the quality of the education of the American people and of other peoples of the world. The basic aim goes deeper than mere better teaching or better educational institutions and enterprises. With the founders of the College, the real aim included the improvement of the life of the people, with special emphasis on the underprivileged and the young; the use of education as a means of sectional and national reconstruction; broader goals of international understanding and cooperation; and the guarding of the liberties of the people by preventing the perversion of education through its use by governments as an instrument of partisan groups and political parties. All these aims depended upon better and more understanding teachers, and it was to lead in the reconstruction of patterns of professional preparation to these ends that Teachers College was founded and developed. These are still the aims of Teachers College. They require the kind of program that needs insight to initiate, freedom to develop, and independence from political and mob controls to protect, cherish, and keep unswerving to its path. I think such a program never could have been carried out and cannot be carried out in this day or in the future except in a large city, under private control, and in association with a great university. Basically it is not a question of mass production. What American education lacks is top leadership. The purpose of Teachers College should be the production of the finest few, the setting of patterns (in industrial terms), the design of the model, leaving to countless institutions everywhere the production on a quantity basis. Up to this point we are in agreement with the idea of limiting Teachers College to the few.

The question then arises, how to find these few and how to provide them with the proper education. We now come to two facts that are basic to our line of thought: one has to do with the pattern of advanced professional education characteristic of those working in education and to an increasing degree in other professions, the other has to do with the techniques of selecting ability.

It is a fact that students preparing for advanced posts in education do not follow the pattern of law and medical students in devoting three, four, or more years of full-time study to their professional preparation. The typical student seeking preparation for advanced posts in education has taken his basic training as a full-time student. Graduate of a high school, he has attended a state teachers college, college, or university as a full-time student. Having finished this stage of his education, he takes a post as a teacher, and then, while still on his job, begins to add, piece by piece, to his preparation for a post as supervisor, principal, superintendent, or one of the numerous specialists in the educational field. He comes to summer school. He takes a post near New York and comes to the College for late afternoon, evening, or Saturday classes. Sometimes he takes leave of absence for a semester or even a year, and studies full-time; but he is never full-time in the sense of the candidate for the M.D. or LL.B. degrees. Most of his advanced training he takes after he has already entered upon his life work.

To the uninitiated, accustomed to thinking in terms of engineering, law, or medicine, this seems a peculiar pattern of professional preparation; in Europe it is considered very queer indeed. But to an increasing degree, it is becoming true in America, particularly as the preparation for higher levels of the various professions becomes more complicated and more extended. Thus in the Army and Navy, while basic preparation is given either at West Point or at Annapolis, the career officer is not considered professionally prepared after graduation from a service school. He serves a short time with his troops or as officer on a ship, and then is returned to various postgraduate professional schools for higher and more specialized training. In medicine the young M.D. serves as an intern, and then returns for occasional short courses or specialized work. After his initial preparation he is never (or rarely) a full-time student. He is at work as a doctor or a researcher or a combination of both. Even in law, the young lawyer with an LL.B. really learns the work of a lawyer in a law office; and law schools are beginning to offer advanced work that practicing lawyers often take on leave of absence or in part of their time. Study of other professional schools, such as Harvard's School of Business or its School of Public Administration, again shows to some degree the pattern of students taking advanced work on relatively short leaves of absence or while engaged in practical work.

Whatever the professional pattern in other lines of work, it is obvious that in education the leaders advance through a hierarchy of posts. Special professional preparation is needed for each succeeding level; and it is safe to predict that it will be many years (or perhaps it never will happen) until the time comes when young men and women take full preparation for advanced jobs before entering the work of the profession. In other words, part-time students, or full-time students on leave of absence for relatively short periods, present the typical situation in advanced preparation for teaching.

The second fact of importance is that Teachers College does not prepare its students for one profession; the jobs are so different, require such different talents and such different training, that it is actually the equivalent of a great group of professional schools. Different standards, lengths, and patterns of professional training are needed for such posts as superintendent of schools, superintendent of a nurses training school, vocational guidance expert, dean of women, school dietitian, school tax expert, registrar, bursar, art supervisor, to list a few of several score of special educational posts for which we have large groups of students in preparation.

These different posts require different abilities and different personal characteristics, with the result that the development or discovery of tests to measure professional aptitude for the great variety of posts for which Teachers College prepares is a research task that is very complicated as well as very difficult. This complexity accounts for the odd fact that research workers at Teachers College have been very successful in constructing tests for professional aptitude in many other lines (in fact, the whole testing movement got a good deal of its start in the laboratories on 120th Street); yet we have been unable to develop tests to help ourselves. In fact, we have had very poor success in discovering professional aptitude in advance by any means whatsoever.

For illustration, in the early 1930's when we started the Advanced School, we made every effort to duplicate under American conditions the way in which the French have, with great success, gathered together at the Rue d'Ulm the flower of French ability and talent. There they have a system of written and oral examinations by which the young men of France are tested, and by means of which a surprisingly large number of the best teachers, writers and politicians happen to have been members of this advanced school. But when we tried to adapt the system to American conditions; set aside $30,000 a year for special fellowships; and then tried, by a system of nation-wide examinations and personal interviews conducted by Faculty of the College and prominent alumni, to discover young men and women who might become leaders in education, it must now be confessed that our efforts met with limited success. Each year we brought in a dozen or so of the best prospects that we could discover; we gave them every opportunity; some of them studied full-time with us for two to three years; yet there are contemporaries of that group who are rendering today great service and who occupy posts of the greatest distinction who at that same time were part-time students employed somewhere in the metropolitan area, or were working at the College for short periods of time on leave of absence from jobs elsewhere. One of the top men in school administration today never took an hour of graduate work save in summer sessions; and some of the ablest professors and research workers in American education took nearly all their graduate professional training in part-time work.

In fact, we have come to believe that in the absence of a great variety of tests of professional aptitude for at least forty distinct types of advanced jobs, we shall have to select our students from among those whom we see in our classes, whom we can see in their initial efforts, who assist on our surveys, whom we can inspect as they do their theoretical and practical work with us. For the time being, and it is my estimate that this condition will hold true for many years to come, we shall have to pick personally those to whom we wish to give special opportunity, in whom we have the greatest hope.

Of course, in the American spirit it will not be a part of our national tradition to follow in the United States the German system of repression, of holding up standards in the hope that the student will fail, of adopting the severe attitude of practically daring the student to succeed. Instead we should adopt the attitude that we want the students to do well, and that differentiations should be made in encouragement rather than in selection and repression. It should therefore be the policy of Teachers College to encourage as many students as possible to enroll in the College to the end that we may have a wide selection. We should of course discourage, and in fact bar, all those obviously disqualified, all those seeking credits for salary increases, and others without serious professional purpose. Beyond that, however, in the present state of our knowledge of testing for our own purposes we should look over and give opportunity to the maximum number possible.

It follows thereafter that every effort should be made by the faculty of Teachers College to discover talent. Some professors have extraordinary ability in this direction; others, very little. A program of training our own professors in service to search for and discover talent should be a major task in future internal administration.

Furthermore, there should be vast improvement in the provision for the education of students of talent once they have been discovered. The real weakness in the present situation is not only that there is great ability in our student body that is never discovered, but also that once it is discovered we lack adequate funds to give fellowships and scholarships, research assistance, opportunities for internships, travel, study in other institutions, and other aids, facilities and opportunities which young men and women of talent and professional aptitude deserve, and which, if properly and promptly supplied, would give to education the leadership of which it stands in so much need.

In a few fields at Teachers College we have been able to develop in an organized way tracks or systems of advanced professional education that, in a university organization, would be professional schools by themselves. Thus in school administration, with its advanced courses, combined work on school surveys, joint research for the Metropolitan School Study Council, internships, and the like, we have been able to prepare young men and women for jobs in administration of school systems; and the products of this training have been able to take important places, with relatively little time on the job needed to learn their way. Certain work in guidance, especially psychological counseling; the advanced research work in the Advanced School of Education; and higher level work in nutrition and nursing are other fields illustrative of the professional education peaks in our present organization. We need to develop other peaks in many distinct professional lines as they are needed in the schools, colleges, and other agencies of education in the practical fields.

Thus it would seem that wise planning for the future should include: (1) continued selection of students to exclude those obviously disqualified, all without basic training and experience, and all not seriously wishing to increase power in service to education; (2) continued attention and service to part-time students and students on intermittent leave, with great improvement of service to these groups; (3) a training program for the present faculty in the discovery of talent and professional aptitude; (4) a research program to discover and develop objective tests of professional aptitude; (5) provision of substantial opportunity for talent once discovered, including financial help, research assistance, internships, travel allowances, and further study in other institutions; and (6) the development of programs of advanced professional preparation in many specific fields, with provision for diminution of the load and teaching program for specially qualified professors.

In discussing these special advanced programs, their number and complexity, and in comparing them individually to whole professional schools in other universities, it will probably be wise for Teachers College to maintain some sort of liaison and relationship between these advanced programs on the highest level. After all, different as may be the technical qualifications for workers on the advanced level, there will be similarities in their work in the schools and in other agencies of education; there are some problems in common; and all will be working as a part of a general team in the improvement of the life of our people. At the highest levels of professional service, our country will need not only capable technicians, but also educational statesmen. In fact, with wrong ideals, and a narrow social point of view, an able technician might do more harm than good. So in Teachers College, even in the most advanced programs of technical preparation, there should be attention to a background of general preparation, of general understanding of the problems of our country, of the nature of human beings, and of the role of education.

Columbia University has entered upon a development program, to let the people know what the University does, what it contributes to American life, what it needs in order to render maximum service. Teachers College is joining with the University in this program. It is our hope that people of public spirit can come to know the vital role that our College plays in American life; can come to understand our problems; and can come to our assistance in developing the kind of program that the College and, incidentally, the American people need. We do not believe that, under present conditions, we can fulfill our function by a process of cutting down our size. What we need is the support to develop our most advanced work, to increase our ability in discovering talent; and the resources to give every opportunity to able young men and women as we find them. Then we may be enabled to continue the traditions of our founders, and render to the world, torn, ravaged and divided by the Second World War, the same sterling service that the younger, smaller pioneer Teachers College gave to its community, to its nation, and to its world a generation ago.

Educational Attainment and Economic Status

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It has long been assumed that the quality of housing in any given locality is related to a number of social factors such as morbidity and death rates, juvenile delinquency, crime, extent of activity by character-building agencies, and the like. A considerable number of studies have documented this assumption for particular cities. Some of these have inferred a causal connection, though this has been difficult to demonstrate.

As a result of the 1940 Census it is now possible to throw some light on the relationship between economic status, as measured by the actual rent of tenant-occupied homes and the estimated rent value of owned homes, on the one hand, and the educational attainment of children seven to seventeen years of age, as measured by number of grades of schooling completed, on the other. The data cover the urban and rural non-farm population only. For obvious reasons the farm group could not be included. However, native white and Negro children can be separately studied. This article summarizes one aspect of these data,[1] which are based on a 5 per cent sample of all non-farm children of the stated ages enumerated in the 1940 Census.

The margin of error is probably quite small. This conclusion is supported both by the statistical formula for determining probable error and by the comparison of the actual total number of children for each year of age enumerated in the Census with the total for each age calculated from the findings on the 5 per cent sample. For whites, the difference between the two totals exceeded .9 per cent in only one age group, that of the native-born females sixteen to seventeen years old, for which the difference was 1.2 per cent. For the Negroes, the largest difference was 2.8 per cent. Obviously the possible errors increase in size as the number of cases in any given category declines. This would affect particularly the highest rental categories in the rural non-farm population.

Before the data are given, certain cautions should be indicated. The categories in which the Census presents the material are crude in that very large populations are used. The rural non-farm category, for instance, includes all incorporated places with less than 2,500 population. While most of these are the village centers of farming communities, this category includes also some suburban places and some one-company industrial villages where the industry owns all houses and where rent concessions may be part of the indirect wages. Furthermore, rents vary considerably among the regions of the United States and within a region among the several cities. Seventy-five dollars a month will buy better housing in Mobile, Alabama, than in Wilmington, Delaware, but both cities fall within the Southern region. Moreover, as the 1940 income data show, some high-income families live in low-rent homes. The subtle factor of family values enters in here. None the less, the data show certain definite trends that appear to have significance for educators.

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[1] Bureau of the Census, *Educational Attainment of Children by Rental Value of Home.* Washington, D. C., 1945. The Bureau announces that unpublished figures of areas large enough to be reliable can be procured for the cost of transcribing or reproducing them. Presumably this would apply to most states and to large cities.

In national terms the data indicate the expected relationship between economic status, measured by rental value of the home, and educational attainment. In other words, for each year of age, the higher the rent the higher the median years of schooling completed. As would be expected, the actual differences are least in the lower ages and grades. The child of seven in a city of over 250,000 population, living in a home costing under $10 a month, had finished 1.3 years. In all rental groups from $30 to $49 or over for males and from $20 to $29 up for females, this figure was 1.7 years. In cities of 25,000 to 250,000 population the spread for the seven-year-olds was from 1.3 to 1.6 years; in cities of under 25,000 it was from 1.2 to 1.6. Only the rural non-farm seven-year-olds showed a narrow spread, from 1.4 to 1.6 years.

Apparently all groups from the lower middle class, to use loose categories, on up the economic scale enter their children in school as early as permitted, and these children make normal progress. Below that level, either the children enter later, or difficulties in progress develop in a sufficient number of cases to affect the median, or both causes operate.

Though the difference between low and high rental groups for age seven is statistically small, a spread of nearly half a year suggests that difficulties showing up later may have begun quite early and that therefore psychological services should by no means omit attention to the early grades.

By age seventeen the spread between the lowest and the highest rental groups had widened to 2.1 years in the largest cities and to 2.4 in the smallest cities. For each rental group except the lowest, under $10, there was an average increase of half a year of schooling at age seventeen over the previous rental category, until the $30 to $49 and upward categories were reached. Thereafter differences, while positive, were only .1 or .2 of a year. Here, obviously, is an indication of the influence on such medians of those who drop out of school as soon as the law permits their employment. Thus, among the high rental groups, the seventeen-year-old has completed 1.8 years more of schooling than the fifteen-year-old. In the lowest rental group, the difference is only 1.1 years.

One item of some interest develops from these national figures. It has been well known, from field studies, school records, and prior Census data, that girls are more likely to finish school or to go further in school before dropping out than boys. This fact is true for the three size groups of cities and for the rural non-farm population, with a single exception: the lowest rental group in cities of 250,000 or more. Here the boys of seventeen have completed 9.4 years, the girls 9.2. Moreover, the difference between the boys of sixteen and seventeen in this rental group is .8 of a year, and among the girls only .2 of a year. What psychological motivations and economic pressures produced this result is a matter for interesting speculation. Almost a quarter of a million seventeen-year-olds, 14.9 per cent of this age, including slightly more girls than boys, are involved in this lowest rental group.

So far as the detailed data are concerned, an illustrative sample only can be given. The reason lies in the plenitude of material the Census offers. Three major regions are used, North, South, and West. Three urban size categories and the rural non-farm population are separately tabulated. Seven rental classifications are employed. The data on the number of years of schooling completed are then given for each year of age separately by sex, in each of the categories mentioned, for both whites and Negroes. Thus the range of figures is wide—for age fifteen and over, the years of schooling range from none to college.

This article centers attention on the native white twelve-year-olds. The child of that age who progresses normally through a school system has finished the sixth grade. In systems that use the 6, 3, 3 plan he has completed elementary school. Moreover, this age is one which in every state is less than the legal school-leaving age, a fact which makes some of the data disturbing. It should be pointed out that the complete data as published by the Census permit any school to compare its rate of retardation, normality, and acceleration with the national or regional record for other communities of its size group for the years covered by compulsory school attendance laws. This article is presented in the hope that it will lead to further analysis both regionally and locally.

The data for the twelve-year-olds are presented in the Tables 1, 2, and 3 herewith. The percentages have been calculated from the total numbers given in Table 1 of the Census monograph noted in footnote 1.

It is apparent that the proportion of children who are retarded decreases as the economic status of their families, measured by rental paid, increases. Conversely, the higher the rental the higher the proportion of children who are accelerated. This is true in all three regions and, with slight exceptions, for both urban and rural non-farm children.

In comparison with that of the North and West (except for the Western rural non-farm group) the proportion of retarded children, that is, those who at age twelve have completed four

TABLE 1

PER CENT* OF NATIVE WHITE URBAN AND RURAL NON-FARM TWELVE-YEAR-OLDS COMPLETING SPECIFIED NUMBER OF YEARS OF SCHOOL BY RENTAL VALUE OF HOMES: NORTHERN REGION

NUMBER OF YEARS	TOTAL†		UNDER $10		$10-$19		$20-$29		$30-$49		$50-$74		$75 AND OVER	
	U‡	R	U	R	U	R	U	R	U	R	U	R	U	R
3 or less.....	3.3	3.8	7.2	7.4	5.1	4.4	3.0	2.5	1.7	1.4	1.2	1.1	0.7	0.9
4...........	7.5	10.1	15.3	13.3	11.6	11.2	9.0	7.0	4.9	6.8	2.6	3.9	2.0	3.1
5...........	22.5	26.4	28.0	28.9	27.6	28.4	25.1	25.3	20.0	24.0	16.1	19.4	13.9	16.6
6...........	42.2	39.9	34.9	35.2	37.9	39.3	41.8	43.2	45.4	45.1	46.9	48.9	46.5	49.4
7...........	19.2	15.4	11.6	12.4	14.7	14.4	17.3	18.3	21.8	18.2	25.2	21.1	27.9	24.5
8 or more....	4.7	2.6	2.0	1.9	2.9	2.2	3.7	3.0	5.0	3.7	7.2	4.8	8.2	4.1

*In this and subsequent tables, percentages do not total 100, as the unreported, usually less than 1 per cent of the total, have been disregarded.

†The percentages in this and subsequent tables include both sexes.

‡U = urban; R = rural.

TABLE 2

PER CENT OF NATIVE WHITE URBAN AND RURAL NON-FARM TWELVE-YEAR-OLDS COMPLETING SPECIFIED NUMBER OF YEARS OF SCHOOL BY RENTAL VALUE OF HOMES: SOUTHERN REGION

NUMBER OF YEARS	TOTAL		UNDER $10		$10-$19		$20-$29		$30-$49		$50-$74		$75 AND OVER	
	U*	R	U	R	U	R	U	R	U	R	U	R	U	R
3 or less.....	9.9	15.4	27.1	22.6	9.5	7.2	4.2	3.9	2.8	2.4	1.1	1.1	1.0	2.2
4...........	12.9	17.0	20.8	21.4	17.2	14.3	9.8	7.8	6.0	8.7	4.8	5.2	2.4	2.2
5...........	27.1	26.3	27.2	25.2	29.7	29.2	27.6	27.3	25.8	26.9	22.6	24.2	22.1	18.6
6...........	34.2	29.5	18.3	22.4	28.3	35.4	41.5	42.7	41.7	44.5	49.4	48.5	45.3	47.0
7...........	12.3	9.6	5.2	6.7	9.9	11.7	13.8	15.7	19.4	15.3	14.8	14.0	23.4	21.6
8 or more....	2.9	1.6	0.9	0.4	1.3	1.7	2.8	2.1	4.1	1.9	7.2	7.0	5.6	8.2

*U = urban; R = rural.

TABLE 3

PER CENT OF NATIVE WHITE URBAN AND RURAL NON-FARM TWELVE-YEAR-OLDS COMPLETING SPECIFIED NUMBER OF YEARS OF SCHOOL BY RENTAL VALUE OF HOMES: WESTERN REGION

NUMBER OF YEARS	TOTAL		UNDER $10		$10-$19		$20-$29		$30-$49		$50-$74		$75 AND OVER	
	U*	R	U	R	U	R	U	R	U	R	U	R	U	R
3 or less.....	3.4	7.3	16.0	13.8	1.1	4.8	2.1	2.1	0.8	1.3	0.7	1.2	0.0	0.0
4...........	7.1	12.0	19.3	17.6	11.6	11.7	5.7	7.6	3.4	4.9	1.1	2.4	1.2	6.9
5...........	25.8	28.6	31.0	28.5	35.5	31.7	26.8	27.2	21.9	22.9	17.6	20.4	11.3	27.9
6...........	43.6	39.6	22.4	31.1	37.1	41.1	46.8	45.3	50.6	54.1	49.3	54.3	48.9	34.9
7...........	16.2	11.0	9.0	7.5	12.0	9.5	14.5	16.0	18.9	12.8	24.6	18.0	28.0	30.2
8 or more....	3.9	1.3	1.8	1.0	2.1	1.1	3.6	1.4	4.3	2.3	6.5	3.6	10.4	0.0

*U = urban; R = rural.

years or less of school, is high in the South. Conversely, except for the highest rental rural non-farm group, which is numerically very small, the proportion of children who have completed seven or more years of school at this age is significantly higher in the North and West than in the South.

In all regions, in the two lowest rental groups the proportion of children retarded sharply exceeds the proportion accelerated. In the three highest rental categories, the reverse is true.

It is important to realize, however, that in every region there are those in the lowest economic status categories who have completed eight or more grades. Again, conversely, the highest rental categories also contribute to the group which has completed only three grades or less. Economic status, then, is not a final determinative factor, but it may serve either as an impetus or as a severe handicap to educational progress. The data raise the unanswerable question as to the amount of social loss resulting from failure to compensate for this handicap.

In all regions and almost all rental categories there is less spread, that is, a greater concentration around normal accomplishment, for the rural non-farm children than for the urban. The rural group tends to show less extreme retardation or acceleration than the urban. This fact may be related to the type of school in rural villages or to a tendency in some parts of the nation to start a child to school at six years or later rather than at the earliest possible moment, five and one-half years. It could also be related to the lack of kindergartens in rural non-farm areas.

Table 2 as presented conceals some striking differences between boys and girls. The latter make by far the better record. They furnish a smaller proportion of the retarded and a larger proportion of the accelerated. In the lower rental categories, the differences are as high as 30 to 50 per cent. In the two highest rental groups they are much smaller.

With only minor exceptions, the generalizations presented hold true also for Negroes. They have, naturally, a larger proportion of children in the lower income categories than the whites and also a higher proportion who have failed to complete six years of school at age twelve. Indeed, as in most of the rental categories for whites in the South, five years of school is modal for age twelve. But Negroes who have completed eight or more years of school also are present in all economic status groups.

Following this illustration of the type of data available in this Census monograph, attention will now be given very much more briefly to two other ages, the fourteen and seventeen-year-olds, using total figures only and thus combining urban and rural non-farm. The former age is chosen because it normally marks the end of the traditional grammar school education; the latter, because it is the last year for which information is given in the Census, and is a voluntary school attendance age in most states.

For the nation as a whole, the largest single group of native white fourteen-year-olds has, as was just indicated, finished eight years of school. The next largest groups in order have completed seven or six years. The fourth group has finished the first year of high school. Again the girls make a better record than the boys. At this age there is 1 per cent more girls than boys in the population, but 20 per cent more girls than boys have finished eight years of school and about 25 per cent more have completed the first year of high school. Indeed, completion of this year ranks third with the girls by a considerable margin over the completion of six years.

When this fourteen-year-old group is considered by rental value of the home, the trends are quite similar to those already described for the twelve-year-old group. Some results of this trend are, however, quite striking. More often than any other group, boys coming from homes renting for $10 a month or less in 1940 had completed the seventh grade—one grade less than the total group had most frequently completed. The number of those who had finished only six years of schooling was larger than of those who had completed eight by almost 4 per cent. Among the girls as a whole, the ranking of years completed followed that for the total group, but with only a slight difference between the number of those finishing eight or seven years. For the boys, one year of high school became the second most frequently completed year in the rental category of $50-$74 a month. For the girls, this happened with the $30-$49 rental group.

Among the fourteen-year-olds, the marked differences in the numbers and proportions completing specified grades indicated in the national figures disappeared in the $15-$19 a month rental group for the girls and in the $20-$29 group for the boys. It seems probable that the better record made by the girls in most age and economic status groups is an indication of the fact that they are held more closely to the home and are perhaps more amenable to discipline than boys.

The trends for the fourteen-year-olds can be indicated by comparing the proportion of functional illiterates, using the army standard of four years or less of completed schooling, with the proportion who have finished nine or more years for the lowest and second highest rental groups.

TABLE 4

PER CENT OF NATIVE WHITE CHILDREN FOURTEEN YEARS OF AGE COMPLETING SPECIFIED YEARS OF SCHOOLING BY TWO RENTAL GROUPS

NUMBER OF YEARS	TOTAL POPULATION	RENTAL UNDER $10	RENTAL $50-$74
4 or less......	3.7	12.4	0.6
9 or more.....	22.3	10.7	34.8

The data for the seventeen-year-olds are also worth discussing briefly, since at this age in most states school attendance is voluntary. By large margins for both sexes and on a national basis, the largest group is that which has completed three years of high school, including over half a million persons all told, approximately one third of the total number of this age. It should be remembered that since the 1940 Census was taken as of April 1, a considerable majority of these boys and girls were in their fourth year of high school but had not completed it. Had the Census been taken three months later, the number who had completed high school would be much higher.

Again, economic status seems to be influential in determining grade status. For the boys, it is not until the $20-$29 rental group is reached that the number of years completed reach the national average of three years of high school. Below that rental level, those who had finished two years of high school are the leading group. The girls from the lowest rental group on reflect the national trend. The difference here is doubtless caused in part by the tendency of boys in the lower economic groups to seek gainful employment soon after they are legally permitted to do so.

Again, the trends for this age group can be indicated by using the national distribution for seventeen-year-olds and comparing it with those of the lowest and second highest rental groups.

TABLE 5

Per Cent of Native White Children Seventeen Years of Age Completing Specified Years of School by Two Rental Groups

Number of Years	Total Population	Rental Under $10	Rental $50-$74
4 or less......	2.3	7.4	0.6
12 or more....	12.8	5.4	17.8

It should be reiterated, and indeed the data prove, that economic status, or at least the rental value of the homes America's children live in, does not determine the educational status. For every age and both sexes, children in every rental group span the whole range of years possible, from lowest to highest. But that housing conditions have an influence on school status is also clear. The data presented were gathered before the war and before the development of the current housing shortage, foretold by sociologists fifteen years ago. Educators can hardly view without concern, therefore, the fact that of the approximately 16.5 million native white non-farm children in the United States in 1940, about one sixth lived in homes with a rental value of under $10 a month, and nearly two out of five in homes with a rental value of under $20 a month. Even granting that the same number of dollars buy better housing in rural non-farm areas than in urban, and that therefore a disproportionate number of these low rental values are in such areas, the picture is none too encouraging. There can be, and are, slums even in rural villages, and the housing in many an industrial village is not the illustration of the American standard of living to be shown to a foreigner. The forbidding columns of figures in the Census report used in this article are, then, a documentation of the educator's, yes, and society's, stake in adequate housing for American families.

As already explained, the Census presents no data for the farm population, since the farm home is not rented separately from the acres of the farm itself. It is quite possible, however, to secure for any county in the United States data on the proportion of children of any given age who are in school. When this is related to the farm income or per farm value for any given county, a measurement of school attendance (rather than grades completed) and economic status can be developed. There is some evidence, both in papers by the author's students and in a few publications, that the trends would not be wholly similar to those noted in this article for the urban and rural non-farm populations. Thus, in Minnesota 75 per cent of the boys and 82.8 per cent of the sixteen- and seventeen-year-old girls, respectively, are in school in the top county, economically measured, and 24.2 and 32.7 per cent are in the county rated lowest financially. Not only is this a tremendous variation, but the counties ranking highest in farm income and value of land and improvements per acre tend to rank in the two lower quartiles of Minnesota counties in the school attendance of this age group.[2]

The situation in this prosperous income state is not so favorable as in some. Clearly, however, economic status is not the sole determinant of educational status in such farm groups. This raises serious questions regarding the functional value of the education offered farm youth.

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[2] Milo Peterson and Douglas Marshall, *Are Minnesota's Farm Youth in School?* Bureau of Educational Research and Agricultural Experiment Station, Universitv of Minnesota, April, 1947. See also Margaret Bright and C. S. Lively, *Farm Youth in Missouri*, pp. 10-13. College of Agriculture Experiment Station, Bulletin 504. June 1947.

From the Ground Floor of International Cooperation

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THE story of America has ever been one of promise. It still is for the suffering and hungry peoples of the world. For our own sons and daughters we hope that the promise of America may open new frontiers of science, technology, and human relations.

During World War II we thought it necessary to tell the world about the American way of life. In the face of great opposition, our government made a modest beginning to include cultural information about the United States in the activities of the State Department. The reports of the congressional committees which went to Europe and South America last summer indicate that our story is far from being known by the people whom we helped to become free or to survive.

Practical demonstrations of democracy in our relations with other peoples give more convincing proof of the validity of our way of life. Even during the war, when we asked or paid for collaboration with our cause, a few farsighted Americans suggested that we would do better to acquire some experience in cooperating with other nations on a new basis: that of *equality and practical means*. In a world of Big Power politics, it would be absurd to seek a basis of equality in the economic, diplomatic, or military sphere. For that, a new morality is needed. The struggles of the United Nations indicate that they are a long way from first base. But there are areas and activities through which we can help the people of the under-industrialized nations to improve their way of life and their standards of living. Education, health, and the improvement of agricultural production and economic capacity can serve as vehicles of international cooperation. It is essential that such activities concern the broad masses of the people, not the elite only. If we apply the characteristic principles of our American culture—self-help, cooperation, and wider participation—we can at least lay a basis for future growth of international morality.

To seek such experience and measure results are precisely what the Inter-American Education Foundation (an agency of the United States Government) set out to do in a limited area three years ago. Its cooperative agreements with fourteen Latin-American republics for the improvement of education are a practical demonstration of how education can be used as a social tool for survival.

Each country working with us puts up from 60 to 80 per cent of the cost of the program in that country. The United States contributes the services of specialized personnel under an American chief of party, and the balance of the money for carrying out the program. The money from both governments goes into a joint bank account from which the Minister of Education and the chief of party pay by check for the different projects. These projects are prepared both in English and in the national language. Since each representative has only one vote, agreement on costs, personnel, purchases, and legal form has to be reached by the process of discussion, but on an equal basis. This is not always easy in technical details, because American government agencies are subject to the strict controls of the Government Accounting Office in Washington. Tact and common sense must prevail when differences of opinion arise about the preference of local custom and law to our practices.

The Costa Rican Cooperative Educational Program is an example of what can be accomplished in a small, under-industrialized country which does not have to carry the dead weight of a largely illiterate Indian population. The United States agreed to send and pay for a staff of specialists and to add $30,000 to the $42,000 cash contribution of Costa Rica. Because of the limited funds and the congressional three-year limit of action, the basic agreement stipulated emphasis on the improvement of rural education. The problems of urban schools and of secondary, vocational, special, and higher education are equally urgent.

With a population of 770,000 and a territory the size of West Virginia, Costa Rica now spends one-sixth of its national budget for public education. Twelve per cent of its population are enrolled in educational institutions, not counting schools for religious training. Forty per cent of the public school teachers are normal school graduates with two years of specialized work beyond the A.B. degree. In 1947 Costa Rica had 863 primary schools and an army of 300 soldiers.

The backbone of Costa Rican economy is agriculture, principally the production of high-grade coffee. Other important field crops are corn, beans, rice, and sugar cane. The extensive banana business, light and power, telephones, and gasoline are in foreign hands. Almost all finished articles must be imported from the United States or other manufacturing countries.

The varieties of climate, from torrid to temperate, the fertility of its volcanic soil, and the homogeneity and high literacy of its population make Costa Rica an ideal country for intensive agriculture. Scientific management of soil and crops could produce much larger returns from sugar, rice, pineapple, cacao, citrus fruits, and truck farming. KLM, the Dutch airline, takes large quantities of fresh vegetables weekly to Curacao. A San José florist ships flowers, especially orchids, to Panama, Mexico, and California every week. During the war the Food Production Division of the Institute of Inter-American Affairs carried on a vegetable and fruit procurement program in Costa Rica to supply the armed forces in Panama. These activities supported the national economy in a difficult period and stimulated the production of vegetables and citrus fruits in the highland region. Increased exports of farm products would not only contribute to a more favorable balance of trade, but would also cushion the periodic depressions characteristic of the coffee economy.

Costa Rica is a democratic country of small landholders and producers. Politically, it is a generation ahead of other Latin-American republics which are still living under dictatorships or *caudillos* (military chiefs of state). Its advanced social security program is a burden for the small employer, but it is securely anchored in the conscience of the working people and of political and labor leaders. Its two major political parties—the "ins" and the "outs"—are popularly named after the party bosses. This being an election year, Costa Rica is divided into two groups, Calderonistas and Ulatistas, after Dr. Calderon, the Republican party candidate, and Ulate, the Democratic party standard-bearer. The small Communist party represents a homegrown variety of radicalism and opportunism. At present the country is passing through the kindergarten stage of party machines and bosses who make alliances and deals without regard to ideologies or social niceties. The enlightened social leadership of the official Catholic Church acts as a stabilizing force in the party struggles for power.

My instructions as chief of party were to make a comprehensive survey of Costa Rican educational needs, to select the most important ones for solution through the cooperative program, to develop an in-service training program for rural teachers, and to prepare textbooks, teachers' guides, and other visual materials. On foot and muleback, by canoe, plane, and car, the Minister of Education and I traveled through all the rural regions of Costa Rica. After visiting the schools, we met with the teachers, school boards, community leaders, and parish priests to hear what they thought of their schools and the needs of their communities. We came to the following conclusions as the best way to use the funds and resources of the cooperative educational program.

The wastefulness of human and natural resources of Costa Rica must be replaced by an intelligent program of conservation. Such a program must begin in the elementary schools and continue through secondary and adult education. The first concern of the schools must be the health of the school children, the second must be the improvement of the productive ability of Costa Ricans.

Until recently, half of the children born in Costa Rica died before they reached the age of five. Tuberculosis, a typical deficiency disease, gastroenteritis, malaria, and venereal diseases are sapping the strength of the population. Through the Department of Cultural Missions, a traveling rural normal school, we made careful physical examinations of over two thousand rural school children in different regions of Costa Rica. Eighty out of a hundred children had hookworm or other undesirable types of intestinal parasites. From 75 to 95 per cent of the children had defective teeth, and 45 per cent had pediculosis. Direct evidence of undernourishment was visible in the size and weight of the children, and in the short attention span during early morning classes.

Costa Rican farmhouses are built of mud bricks or wood. They have tile or thatched roofs, are neatly painted, and are adorned with flowers and ferns. Little window space is provided. One bedroom with two beds often affords sleeping facilities for a dozen or more people. Running water is safe for use only in the larger population centers. The customary diet of the rural people consists of rice, beans, tortillas, and sugar-water. Consumption of milk, eggs, fruit, and fresh vegetables is the exception in a land where nature gives with abundance. Food superstitions are common among the rural people, for example, the one about oranges: "In the morning gold, at noon, silver, at night, tin." Characteristically, one of the primers begins with the sentence, "I play with the orange" ("Yo juego con la naranja").

The first summer school for 180 rural teachers was organized in Heredia, the smallest province, with excellent roads and bus service, and the largest number of complete (six grades) rural schools. Courses included health education, agricultural education, small industries, methods of teaching, physical and safety education for rural schools, and home economics. One afternoon was left for free activities, and Saturday mornings were devoted to forums and roundtable discussions. A number of firsts in Costa Rican education showed up in this summer session: life saving for men and women, what to do when the baby arrives (the rural teacher in outlying communities is man or maid for all special troubles), men teachers learning how to can tomatoes, women practicing the making of compost for the home garden and the making of a layette for $3.00 maximum cost, men learning to knit and to weave baskets, bags, and belts from hennequen fiber. The wife of the state superintendent began with the establishment of the first rural school lunch program in one of the poorest schools in the heart of a great coffee farm. By the end of the first year, all but four rural schools of the province had established school lunch programs.

Trained personnel in the field of agriculture, nutrition, home economics, and community work was what we needed most to extend the program to the other provinces of the country. The pioneer in this work in Latin America was Miss D. Morales from the University of Porto Rico. We were able to secure her services for our program. She selected from each province two to five representatives, all normal school graduates with high ratings as rural teachers or principals, for an intensive four months' training course as home economics leaders. For most of the girls it was their first opportunity to learn how to live. Two objectives were dominant: the organization and direction of the school lunch programs on a self-supporting basis, and the home extension work initiated through the 4-S Clubs (health, knowledge, heart, service). The fundamentals of nutrition and child development, skill in buying and spending, the making of every kitchen utensil from spoon to stove, and plumbing repairs were learned through practice in teams; the organization of community meetings, fund raising campaigns, and budgeting large-scale feeding at low cost became the curriculum of the future leaders. The food conservation classes attracted the wives of several officials of the Ministry of Education. Improved digestion of grateful husbands added to the prestige of the training course.

The Berea College lesson of "producing while you learn" had greatly impressed the Minister of Education when we visited American schools in 1945. To support our school lunch program we initiated a school and home garden program in centrally located schools in each province. There we demonstrated modern methods of soil preparation, planting, irrigation, terracing, and contour work. The cultivator made its first appearance in the hands of teachers and children who had known only the machete and the twenty-inch broad shovel used in the coffee plantations. Demonstrations of compost making were announced to all the neighbors, so that they could see this essential activity for Costa Rican agriculture. The teachers who had learned the different techniques offered to make the compost pits and piles in home gardens for farmers unable to come to the demonstration.

To change agricultural methods and food habits is one of the most difficult enterprises in rural education. Once more the Minister of Education and I went to the rural schools to talk to children and parents about carrots and peas, green salads and fruit juices. Our most difficult job was to convince the parents that the school lunch was not a charity affair for the poor, but that all children were being educated to live and grow in a healthier fashion by consuming the vegetables and fruits they themselves had raised. Neither was the school lunch another activity of the social security program which took care of all citizens from the cradle to the grave. No, each child, each family had to contribute something, even if it was only some firewood from coffee cuttings, an egg a week, or a tree squash for the one-dish meal or vegetable soup. Important by-products of the program were social manners, using hot water for washing dishes, and group responsibility for food preparation and serving.

In August, 1947, after a year and a half of work, the school lunch program served 150,000 hot meals to rural children, at no cost to the government except for the dishes, spoons, and forks, and the training of the leaders. Opposition congressmen who visited the schools in their districts agreed to support a non-partisan bill in the next Costa Rican Congress for establishing the school lunch program as an official activity of public education, and to provide the funds or taxes to pay for the overhead and equipment in the future.

Costa Ricans are very critical and outspoken about the shortcomings of their government and institutions, especially before Americans whose technical skill and ability to organize they admire. They dread the many steps of planning and trial necessary to progress from word to deed. The attitude of do-nothing or hopelessness is common among educated people. Whenever a Costa Rican deplores all the bad things he sees in his country, I point out to him the marvels of the best small farm in Costa Rica. It is a three-acre plot in Rio Segundo, belonging to a retired professor of agriculture in the Normal School, who is also a trained agriculturist and licensed pharmacist. By using modern food production technology, this man and his family raise a thousand grafted fruit trees a year (orange, lemon, tangerine, avocado, mango), thoroughbred cows, goats, geese, chickens, Giant Flanders rabbits, and pigeons. Through the use of irrigation and appropriate natural and artificial fertilizers, these three acres were made to produce all the necessary silage of sorghum, imperial grass, cane, and banana stalks.

In 1941 I had made a study of the Cultural Missions of Mexico, which were then in a period of decline. When I came to Costa Rica I found such a department in the Ministry of Education. It consisted of eight young teachers, all of whom were normal school graduates with at least five years of experience as rural school principals. They traveled over the country, demonstrating in rural schools new methods of teaching, and instructing the teachers in health care, small industries, and recreation. Under the leadership of an able Chilean-trained educator, they had become a really cooperative teacher group. After each mission they met for a critic session, in which all the shortcomings and successes of their work were frankly discussed. This group formed the nucleus of the present Cultural Missions, which have become a traveling rural normal school. The cooperative educational program was able to buy surplus army shop-trucks, tools, machines, a small power plant, a microscope, and other health examination equipment. A new plan of work included a trained health worker, assisted by a microscopist, two American public health nurses, and the services of dentists and graduate students from the dental school of the university. Each missioner had to have at least three special abilities to fit into the plan of work for classroom demonstrations in the morning, teachers' workshops in the afternoons, and community meetings in the evenings. Between missions, the teachers work in their headquarters shops on school furniture, reading charts, and so forth, or hold seminars with specialists on problems they wish to study. Before each mission, the director and two staff members visit the community where they plan to work next, to make a survey and outline desirable action. The preliminary program is then submitted to local teacher groups for criticism and correction.

The four-wheel drive trucks go almost anywhere an oxcart can travel. Along the Pan-American Highway to Panama the Cultural Missions found an isolated community of eighteen families, about one hundred and twenty-five adults and children who had waited for three years to have a school built in their section. The lumber and tiles they had set aside were rotting away in the rainy, cold weather of the highland. The Minister of Education, the Director of the Cultural Missions, and I visited the community and asked the fathers of the children for help in building a school which the missioners would undertake immediately. The help was forthcoming, and in two weeks of hard work a two-room schoolhouse was erected as a joint enterprise of teachers and community. It cost $600 in all, whereas the estimate of the Public Works Department had been ten times that amount.

This year, instead of one summer school, we set up four centers: one in the peninsula of Guanacaste (the "Wild West" of Costa Rica); one in the center of the sugar cane area; another in the dairy province of Cartago; and one near the capital for the semirural schools, in the vicinity of San José. The home economics leaders took a refresher course of two weeks. They held several complaint sessions with the officials of the Ministry of Education to secure more cooperation from the "sit and study" group of principals.

Working from the bottom and top of the educational hierarchy made it advisable to offer some new ideas to the administrative group of supervisors and superintendents. Under a centralized government, many of the administrative officials are politically appointed and turn rapidly into checkers of routine instead of into leaders in their districts. Costa Rica is no exception to this pattern. Out of seventy-two officials we gained seven converts whose school districts soon became known for their exceptional work. Since a Latin generally does not do anything new merely because he is convinced it is good, the incentive of comparison and competition proved to be more effective. Taking the supervisor or principal, together with the president of the school board, on a visit to one of the successful school gardens or school lunches usually sufficed to stimulate their pride and initiative. By now one-fifth of the rural teachers of Costa Rica have become acquainted with the new orientation through work and study in the summer sessions of the cooperative program.

At the time of the conquest, the Spaniards discovered that the only way to get rich in Costa Rica was by cultivating its fertile soil. Lack of roads and of communication with the sea isolated the early farm settlers. Accordingly, they banished the obstreperous Indian tribes to the southern cordillera where they live to this day, about four thousand strong, in almost inaccessible mountain territory. Near the trading center of Buenos Aires is the only large settlement of them (seventy families) in Boruca. School centers in three other villages attract the Indian children when the trails are passable.

They are poor to destitution. Their life span of not more than thirty years has been cut short by malaria, tuberculosis, intestinal parasites, and other diseases. They do not know how to use the resources of their environment. They have no ambition, they fear and distrust the whites, who habitually exploit their ignorance and language disabilities. The only white person who is always welcome among the Brunca and Cabecares of Costa Rica is a woman—an American archeologist. Her scientific interest in the past of the Costa Rican Indians is balanced by a sense of humanity and concern for the material and spiritual welfare of these forgotten citizens of Costa Rica. As president of the National Council for the Protection of Aboriginal Races she secured the passing of a law for the delimitation of inalienable Indian lands and better supervision of the Indian schools.

With the aid of the Council and the Cooperative Program we secured the permission of the chiefs of three tribes to send two girls from each tribe to a training course for school assistants in the trading center of Buenos Aires. Accompanied by the chiefs and members of their families, the six girls arrived at the hut that was to be their home and work center for six weeks. The oldest one was twenty-two years of age, the youngest thirteen. Three of the girls had attended school for one or two years; the others had had three or four years of schooling. Rosita and Pastora spoke their Indian dialect in their homes; the others spoke Spanish.

The director of the course and her Costa Rican assistant had brought a few boxes of fresh vegetables and fruit, tools, two sleeping bags, a cot, and two mosquito nets. The tamped clay floor of the hut was still damp from the rains, the outhouse was unfinished, not a stick of furniture was inside the four walls. Over three hearthstones the first meals were cooked, including vegetables which the girls had never seen or tasted. The chirping of the crickets in the new thatch, the mosquitoes, and stray dogs and pigs breaking through the opening that was to be the door permitted little sleep the first night.

The next morning the household duties were divided into five groups: cooking, buying, bringing water, washing dishes, and house and yard cleaning. Only once did the director have to explain the organization of the work. Pastora, the youngest of the group had one day free the first week, but not to rest. She was to help the others when necessary without being asked. During the first two weeks each girl built her bed from split bamboo, held together with tree vines, with mattress supports made from beaten tree bark. Jointly they made the inside divisions of bedroom, living room, and combined kitchen and dining room. The first group discussion was on the importance of "a place for everything, and everything in its place." Construction of closets, a writing table, a dining table and benches, a fireplace with chimney and meat curing box, a dish closet, a dishwashing sink, wash basins made from large gourds, and ironing board and towel racks occupied ten days. From the sound principle, first things first, they learned elementary organization of daily home life, beginning with personal health and hygiene, nutrition, child care, rest, and recreation.

Once the home was running smoothly, the afternoons were left free for special activities. The sewing machine attracted women and girls from the neighborhood to the sewing circle. Underwear, outer clothing, and baby layettes were made from sugar sacks and men's old shirts. Through the demonstration method, each girl learned to make her own patterns for all her clothing. Some young Indian men from the farm school two hours' travel away came one day to make the fence and a cattle-proof gate for the two-acre plot around the house. From then on, children from the neighborhood came every afternoon for play and simple manual arts work with gourds, fibers, bamboo, balsa wood, and clay.

Buying provisions in the village every day made it necessary to teach the girls the elements of arithmetic in order that they might keep simple accounts. Reading and writing lessons had to be added to enable them to attend to the bulletin board, shopping lists, notebooks, and correspondence with the family. Their capacity for learning and for taking initiative and responsibility proved once more that these people, instead of being a social or economic liability of Costa Rica, could easily become self-supporting and self-respecting citizens. The conditions of living could hardly be more difficult than on the clay savannah of Buenos Aires. In the morning the sun beats down mercilessly on the treeless plain; by late afternoon the tropical cloudbursts have turned the valley into a vast lake. Yet during the entire six weeks there was not a single case of illness among the members of the training course.

The closing fiesta was attended by all the neighbors and relatives of the girls who had come to take them home, for some of them a two-day journey on foot. It was a doll festival, where each girl's doll (the Indian girls had never seen or owned a toy) and those of the play group were christened. The final group photograph, when compared with the one taken on the day of arrival, shows such a contrast in appearance and personalities that it is difficult to identify the same girls in the two pictures. Now we are hoping that the Costa Rican Ministry of Education can use these girls in the schools of their community and give others an equal opportunity each year to learn and grow through "life lessons."

An important area of education still to be developed is the curriculum of the elementary school. The methods now used and the textbooks or instructional helps bear little relation to the actual environment and the basic needs of rural children. For lack of proper counsel the last Education Code approved by the Costa Rican Congress contains the detailed plan of instruction, schedules, and subject matter (thirteen required subjects for the high school). Fundamental changes in the Education Law need the consent of the Congress, which is difficult to secure in a pre-election year. The two outstanding defects of the present system are an overemphasis on intellectual training and a complete absence of measuring what is learned or understood. The methods used in the schools cover the entire range from McGuffey's Readers days to the project and units of work methods common in American schools. Few teachers know how to apply these methods correctly. Those with emergency certificates have often had only a six-weeks' training course with a review of elementary school subjects.

We started out by analyzing what a farmer needs to know and to do to sustain himself and his family adequately. From that we derived a list of minimum essentials which every child should master before he leaves school. When we measured capacity to understand number work, we found, for example, that children who could do long division could not clearly distinguish between *more*, *less*, *some*, *many*, *much*—all fundamental to more advanced arithmetic work. Third grade compositions on the functioning of the digestive system contain a vocabulary adequate for a nutrition specialist or a student of physiology. Few children can explain in simple words or by a sketch what happens to the digestive apparatus when hookworm, amoebas, or tapeworms are flourishing. The only concrete evidence of what a child has studied or done in school is in the Master Notebook. It contains exercises, compositions, lessons dictated by the teacher, and innumerable colored drawings and sketches for geography, natural science, and geometry lessons. Since it has a high rating value for final passing grades, aunts, grandfathers, or other talented family members make their contributions to the homework assignments, especially of the city schools.

Keeping in mind our principal objectives of better health and production, we developed a curriculum and teacher's manual for the first three grades. The American specialist was teamed up with a Costa Rican teacher who had been trained in the University of Kentucky curriculum laboratories and in the demonstration schools of Berea College. At the present time, the outline for the six grades is being tried out in Guatemala and Salvador in order to make a publishing program possible which may serve several Central American countries. The installation of this program and the development of a practical testing and evaluation procedure will take several years beyond our present program commitment.

What, in short, have been the results of two and a half years of work? For a relatively small financial contribution we have put new life and hope into the hearts of teachers and children of rural Costa Rica. Sixty per cent of our money contribution to the program went for the training of teachers and leaders of our home economics and agricultural production program. Thirty-seven per cent went for equipment bought in the States, such as pots and pans, dishes, spading forks, rakes, cultivators, seeds, insecticides, and health examination and first aid equipment. Only 3 per cent went for administrative costs. Where none had eaten well before, seventy-four school lunch programs furnished up to 150,000 nutritious hot lunches per month to rural children. Forty-five school gardens, from one-fourth of an acre to two acres in size are producing a variety of vegetables, fruits, and special seed corn to support the lunch program. American-trained specialists demonstrate new methods of soil conservation, crop rotation, and compost making. The boys' and girls' clubs teach the older children and those who left school before graduating, how to improve the family budget through better homemaking and small industries. The first school cooperatives have started to function. Some produce charcoal in the mountains for the valley schools; others raise rabbits for meat and skins.

More than a thousand rural children have had their teeth examined, extractions have been made, and serious cases have been treated. About a thousand teachers and supervisors have attended summer courses and workshops to learn about the new curriculum and the objectives of the Ministry's reforms in rural education.

Rural school boards, instead of waiting for handouts of tools, equipment, or money, have learned how to finance their garden and lunch projects through self-help, community activities, and commercial production for the market.

The overcrowded girls' high school of the capital initiated a three-year home economics course with an adequate laboratory and diversified equipment to meet both city and rural resources and conditions. Already there is a decrease in high school failures, which amounted last year to 65 per cent of registration.

The National University Reform Council is working on a general education program for the first two years of university studies. Through the participation of the director of the Cooperative Program, serious consideration has been given to American plans for better college education, such as the Harvard Plan, the Columbia Courses of Contemporary Civilization, the Chicago Program for the A.B. degree, and also for better articulation between the university and the high schools. Less than 20 per cent of the high school students enter the university for professional studies, but all students have to take the stiff academic program toward the A.B. or B.S. degree which is awarded at the end of the secondary education course.

For the first time in the central administration of the Costa Rican educational system it has been possible to have a staff of specialists in the Curriculum Bureau, but there is still a long way to go to the merit system and teacher selection on the basis of competitive examinations, especially in the higher brackets.

From the American point of view,

the experience has been even more valuable. For the first time we have made a survey, recommended improvements, and stayed with our recommendations long enough to help during the difficult initial period of reform. All decisions and activities were determined by mutual discussion and agreement without using technical or economic prerogatives to impose American standards or procedures. International cooperation on such a basis is possible and is greatly appreciated. If we put up a small financial stake to make it possible, we encourage other nations to invest in social and economic progress a little more than they thought possible.

Our greatest shortcomings in meeting the new demands for such cooperation are in personnel and experience. We have few teachers and leaders with training and disposition to get along with foreign educators on a practical basis. Given language knowledge and special competence in an educational field, it still takes at least a year of field work before such a specialist is capable of working smoothly with foreign teachers on a level of production expected at home.

Government sponsorship of these cooperative programs, especially under the auspices of the State Department, is a liability with many facets. Federal appropriations for international cooperation are still made with an eye to quick returns. Hence the arbitrary time limit of three years for these action programs, when any responsible educator knows that curriculum and program reforms need at least a complete cycle of six to eight years of activity before conclusive results can be secured. A congressman or senator subject to all the pressures against extension of the federal bureaucracy is not likely to give a second thought to programs whose immediate results cannot be shown conclusively in figures, or in such evidence as hospital building, water supply systems, or trade statistics.

The main business of the State Department abroad is its diplomatic representation and the protection of our government's relations with foreign governments, not with the people. Generally, a diplomat's principal asset is manners, not technical competence in a specialized field, at least not for posts in the under-industrialized countries of the world. Even though understanding and experienced State Department officials have defended the cultural relations program, it has been like a millstone around the Department's neck when its representatives had to appear before the budget hearings of the Congress. In the perspective of the State Department with its worldwide responsibilities, and of the congressional committees on foreign affairs and appropriations, these cooperative ventures of our government may appear picayune. For the practical preparation of our people in world cooperation at the first level they are very significant. They will test whether our democratic ideas and practices will work when they are formed into new combinations abroad. They will teach us never to look down upon others who are different from us.

Science and technology have helped us to raise the standards of living and the possibilities of the good life which we associate with our form of government. Where the war has ravaged the resources and hopes of the peoples of the world, the services of American technology are urgently needed to make life worth living again. The under-industrialized countries which were not direct participants in the war are also looking to us for such assistance. The impact of science on the lives and living conditions of under-industrialized peoples nowadays can come with lightning speed. Progress within a matter of weeks or months from the oxcart stage of civilization to the air age brings profound changes in the mores and lifelong habits of people. Without educational preparation and support during a period of change, discontent, failure, and resistance to new modes of work can easily discredit our efforts. What good is it to build a new hospital without training the nurses to staff it and the administrative personnel to run it, and being assured of a budget from the government to sustain it? Some of the best American engineers built a water supply system in a Latin-American capital, and six months after their departure it deteriorated. The inhabitants were not prepared for this innovation.

There are very few parents—white, black, or brown—who do not wish a good life for their children. In America we have gone farthest toward the realization of this dream. The social tool we use is education. To teach others how to use this instrument in the world of tomorrow is a contribution which American education can make to international cooperation, if we begin with the simple and fundamental things of life. The resources which science and technology place at our disposal are great, but they must be used within the framework of the common good to conserve the basic values of liberty, justice, and personal integrity which all democratic peoples cherish. By seeking the areas in which we can collaborate with other peoples on an equal basis, and by teaching them to make the best use of their resources for improving the quality of life, we extend our capacity for world citizenship.

Conference on Philosophy of Education

A report of meetings held November 10, 1947, on the occasion of the presentation of the William H. Kilpatrick Award for Distinguished Service in Philosophy of Education to Dr. Boyd H. Bode, Professor Emeritus of Education, Ohio State University.

INTRODUCTORY STATEMENT

R. BRUCE RAUP

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

THE KILPATRICK AWARD

At the time of his retirement from active service in the faculty of Teachers College (1937), hundreds of Dr. William H. Kilpatrick's friends, including students, colleagues, and many others, gratefully joined resources to present a portrait of him to Teachers College. This likeness of the distinguished educator hangs now in the library of the College.

From the funds gathered on that occasion there was an amount over and above that needed for the portrait. Professor Kilpatrick, in conference with the Fund Committee, was pleased that this residue should become the permanent basis for an award which would give further stimulus to the great cause which his own career had so brilliantly advanced. The fund accordingly was put into the possession of the Trustees of Teachers College and there was thus established by the College the William Heard Kilpatrick Award for Distinguished Service in Philosophy of Education. A committee appointed for the purpose studies the field and every two years selects a person to recommend as the recipient of this Award.

While the articles specify that the Award is to be made biennially, the conditions attending World War II interrupted the schedule. Two persons have received it to date. These are Dr. Kenneth D. Benne, in recognition of his outstanding book, *A Conception of Authority;* and Dr. Isaac B. Berkson, in recognition of his well-known two volumes, *A Preface to a Philosophy of Education*, and *Education Faces the Future*. Now a third person has been chosen, Dr. Boyd H. Bode, professor emeritus of the Ohio State University, in recognition of: (1) the leadership and productive scholarship in philosophy of education which have marked his career as professor of education in the Ohio State University (retired June 1944); (2) his year of noted influence in the educational circles at the Graduate Institute of Education in Cairo, 1944-45; (3) his continued scholarly production evidenced by such articles as those on the Harvard Report (*General Education in a Free Society*) appearing in *The Journal of Higher Education*, April 1946, and in *School and Society*, March 23, 1946. More recent still are the vigorous statements which have appeared in current journals: "Conceived in Liberty," *Childhood Education*, September 1947; "Is Progressive Education Obsolete?" *School and Society;* "The Basic Issue in Liberal Education," *School and Society*, March 23, 1946; a chapter in *Modern Education and Human Values*, published by the University of Pittsburgh Press.

THE CONFERENCE

On the tenth of November, 1947, more than one thousand persons were gathered in the Horace Mann Auditorium of Teachers College, the scene of many of the large classes wherein Professor Kilpatrick established his abiding reputation as a great teacher. They had come from all sections of the country, and scores of them were from other lands, to witness the presentation to Professor Bode of the medal symbolizing the Kilpatrick Award.

Dean William F. Russell, who at that time was in attendance at the World Conference of UNESCO in Mexico City, had delegated Professor George S. Counts, Head of the Department of Social and Philosophical Foundations in Teachers College, to represent the College as chairman of the Conference. On the platform with Professor Counts were Professor John Dewey, Professor Kilpatrick, Professor Bode, and Professor H. Gordon Hullfish, the latter a long-time colleague of Professor Bode in the Ohio State University. The statements made by these friends of Professor Bode and the paper which he prepared for the occasion, are preserved in this issue of THE RECORD.

A second session of the Conference was held in the evening of the same day. One hundred and thirty friends of Professors Kilpatrick and Bode gathered for dinner and there continued the discussion. Two statements in critical appreciation of Professor Bode's paper gave leads into the discussion. These statements by Professors John L. Childs and Kenneth D. Benne are found with the other papers in this issue. The response to them by Professor Bode was in good form and sharpened with the wit for which he is famous. Unfortunately, no record of this part of the discussion was kept.

No one is better situated or better able than Professor George S. Counts to appraise both the occasion and the Conference as these have significance for the future of the professional education of teachers. His statement, prepared after the meetings, serves as a fitting introduction to all of the papers.

A Memorable Occasion

GEORGE S. COUNTS

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

THE bestowal of the William Heard Kilpatrick Award on Professor Boyd H. Bode at Teachers College on November 10, 1947, was a memorable event in the history of American education.

It was memorable in the literal sense of the word. It was a striking spectacle. For those who attended the meeting in the Horace Mann Auditorium it was unforgettable. Among the speakers were the three most distinguished American students of the philosophy of education now living. Friends and admirers of these men had come from near and far to hear them and to honor one of them. The thought may have passed through the minds of many of those present that they would probably never again hear these three giants of educational thought—Dewey, Kilpatrick, and Bode—speak from the same platform.

The event was memorable in a deeper sense—because it celebrated a significant development in the field of education. In its substance it revealed the emergence in America of a deep and widespread concern over the foundations of education. There was a time, not so long ago, when the training of teachers was conceived almost wholly in terms of the mastery of subject matter and classroom methods. The vast and responsive audience attending this conference demonstrates that that time is past. The conduct of the great enterprise for the rearing of the young is coming to be regarded as requiring the highest qualities of statesmanship. And this means the kind of thought which Bode has always brought to problems of education.

The event was memorable also because of the particular theme of Professor Bode's paper—"Education for Freedom." Unfortunately the hour for the consideration of this question is already late. Although American teachers have taught the young from generation to generation that their country is the "land of the free," at no time have they probed deeply into the problem of the educational foundations of human freedom. The issue, always important, becomes ever more urgent today because of the rise and spread of powerful and aggressive totalitarian movements and ideologies. The friends of human freedom everywhere should be directing their energies to the task of developing an educational program which will serve the cause of liberty as effectively as the educational programs of totalitarian systems serve the cause of tyranny. Professor Bode has presented this challenge to American educators.

Boyd H. Bode: An Appreciation

JOHN DEWEY

PROFESSOR EMERITUS OF PHILOSOPHY, COLUMBIA UNIVERSITY

I WISH to begin with congratulations, first, to Dr. Kilpatrick for establishing the series of recognitions of distinguished service in Philosophy of Education; second, to him and all members of the Committee for their judgment in awarding this recognition to Boyd Bode; and, third, to Dr. Bode himself, not so much, however, for being the recipient as for the long record of teaching and writings on account of which he so amply merits this token of acknowledgment.

Since I have myself been primarily engaged for many years in the pursuit of philosophy as student, teacher, and writer, it is perhaps fitting that I speak of the work done by our common friend from the philosophical point of view. Some of you here are doubtless aware that he began his academic career as a professional student of philosophy with the aim, presumably, of being a teacher of that subject. He received his doctorate in that subject. *The Journal of Philosophy* and *The Philosophical Review* for the year 1905 carried critical articles by him which exhibit the vigor and independence that have marked his whole career. At the time they deserved and evoked the serious and somewhat prolonged attention of William James. But Bode increasingly turned from philosophy for its own sake to philosophy for the sake of its application in fields where he felt it would bear a human fruit denied it as long as its main business was to discuss problems confined to itself.

His reason for leaving philosophy as a subject pursued on its own account and the field that he chose in which to apply it are both of them, to my mind, deeply significant of the spirit that has animated all his work. He felt that philosophy as an end in itself was too remote from human life to command his full energy and regard; he felt that education was the focal and strategic field in which the truths in the possession of philosophy could come to life in human affairs. In my best judgment, the fact that Boyd Bode has always seen both philosophy and education as expressions of human life, in terms of their joint opportunity and responsibility for contributing to the advancement of that life is what makes his educational work so outstanding and so upstanding. Bode has often been over-generous in what he said about the influence of some of my philosophic writings in aiding him to unite philosophy and education. However, it makes me proud and happy to feel that I have had even an indirect part in the work he has done. Nevertheless, strong as is my "will to believe," I have also to tell you that whatever came to him from any source somehow came out different after it had passed through his mind with its unfailing instinct for clarity, his sense of humor, and his constant vision of where and how the ideas in question should and could enter the lifestream of human beings.

What seems to me the distinctive factor within his human frame of reference is the sure grasp with which he has kept the personal and the social in firm and true balance. No one has emphasized more than he the importance of freedom. But he has always seen freedom to be a moral matter and morals to be rooted in an intelligence that is informed and aware of its social responsibilities. And while he is aware of the emptiness of education that does not have a social outlook, he has never thought it the work of education to reflect passively the given order. He has seen it as the agency through which the social order could itself become more just, more free, and more responsive to the duties it owes its members. I may express this more simply and directly by saying that he sees democracy as the moral human order which gives the fullest possible opportunity for development of all its members and sees the schools of democracy as agencies for maintaining and strengthening that order. The service he has rendered to this cause is no lip service of indiscriminate laudation. He has been sensitive to deficiencies and internal divisions and contradictions in our democracy and in our schools. He has worked steadily in behalf of an education in which the spirit of a democratic human order would be so pervasive and so unified as to contribute effectively to the advancement of a similar order in all the human relationship of American life.

I wish to close, as I began, with congratulations. This time I wish to congratulate those who are here today in their capacity as representatives of the much larger number not present that we have Boyd Bode upon whom to confer the honor of this Award.

A Great Teacher and Colleague

GORDON HULLFISH

PROFESSOR OF EDUCATION, OHIO STATE UNIVERSITY

On another occasion I said of Professor Bode that he "has steadily insisted that we be chary of those who insert themselves in our lives as the bearers of the only truth, the only good, or the only beauty."[1] The statement should be repeated here. Bode has an uncanny ability to penetrate the many disguises which those of authoritarian inclination wear.

Those familiar with Professor Bode know with what effectiveness he has forced the authoritarian to show his true hand. They know, too, the ways in which he has helped those who have grown into authoritarian habits unreflectively to sense the inadequacy of their operations in relation to the democratic ends they had thought they were pursuing. As a consequence, he has shared with his colleagues, two of whom, Professors Dewey and Kilpatrick, are on the platform with him this afternoon, in extending and deepening an appreciation of the meaning of democracy on the part of the educational profession.

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[1] *Philosophy of Education in Interaction*, Ohio State University, May 26, 1946, p. 8.

Nor is his work yet done. His retirement from teaching presented him with new opportunities to carry on his effort to enhance steadily the life of the common man. A year in Egypt, a summer at the University of Tennessee, and a summer at the University of British Columbia provide evidence of his continuing activity. His retirement was a distinct loss to one institution, Ohio State University. It was a distinct gain, however, to another institution, the democratic aspiration.

Professor Bode, it seems fair to say, has so completely identified himself with the cause of the common man that he conducts himself as one of them. He will sit uneasily in his chair this afternoon, and somewhat unbelievingly, as we here share deeply in the experience of doing him honor. He has never coveted personal award. Yet the spirit of his own life will help him understand the spirit of sincerity which brings us together. We are concerned merely to give simple expression of our appreciation for having been compelled by him to reach beyond the stage at which our intelligence would have rested willingly had he not been always an enemy of the dead-end street in intellectual affairs.

It was this latter quality which made Professor Bode one of our truly great teachers. His way of getting over to a class a sense that they were engaged in profitable intellectual endeavor always excited students. This was true even for those students whom the rest of us thought to be beyond cerebration. Thousands of students will bear witness to this observation. I know of few more heartening experiences for a teacher than to listen to the enthusiastic way in which former students recall their work under Professor Bode.

It is not easy to analyze the work of a great teacher. I should like to venture the suggestion, however, that Professor Bode's great asset was his profound simplicity as a human being. Certainly, he was not alone among his fellows in being able to challenge the thought of a student, or in being able to communicate the notion that the intellectual quest is a rewarding one. Not all who can achieve these ends, however, are able to make a student feel that he is in good hands. Somehow, even for those students who have been heard to remark that when entering his classes "they had to stack up their souls outside the door," he represented so completely a mind that could be trusted that students stepped beyond their depth with a sense of certainty. They did not expect to be let down. They had a feeling that only good could result from their efforts.

The classroom situation, which in Professor Bode's hands became the completely human situation, represented the essence of his educational thought: *the educational operation must exemplify democracy at its best.* Too few men are able to transmit their philosophy through their habits. Professor Bode did. In doing so, he brought to American life, and to American education, a living example of the deeper meaning of the democratic philosophy. We honor him then, as we should, as a man.

Bode's Philosophic Position

WILLIAM HEARD KILPATRICK
PROFESSOR EMERITUS OF EDUCATION, TEACHERS COLLEGE

To us here present, and to many others, this is an occasion of great interest. We are met to honor one of America's greatest educators. Merely to share in the occasion is, I feel, an honor. For a full generation and more Dr. Boyd H. Bode has been one of our foremost thinkers in the philosophy of education. It becames my duty to review before you some of the specific contributions he has made. Dr. Bode is so adept in finding weaknesses in what others say that I am doubly conscious of the difficulty of my task. I would wish another had my place except that I am glad to add my personal testimony on the occasion.

If I am correctly informed, Professor Bode—as also did Professor Dewey—began his professional career with a neo-Hegelian outlook. Knowing both men as we do, we are not surprised at either change. Hegelianism could satisfy neither. As I myself read Professor Bode, I seem to see three distinct but consistent and converging positions in his general outlook: (1) acceptance of a universe, as James said, "with the lid off," a novelly developing world in which no one knows the future; (2) acceptance of democracy as the desirable way of life; and (3) in his own words, "the development of individual capacity" as "the supreme test of progress." Dr. Bode's career has consisted of the critical study and development of the implications of these positions and, especially since 1921, as they furnish guidance for education. In what follows much that I say regarding his outlook is taken from his own words as he has developed his ideas.

My own firsthand acquaintance with Dr. Bode began in 1917 with the publication of *Creative Intelligence*, a composite volume to which Professor Dewey contributed the opening chapter. The title of the book itself could hardly have been better chosen to foretell the line of Dr. Bode's specific future contribution. His particular chapter was "Consciousness and Psychology." As I recall, I had myself already got, probably from Professor Dewey, the idea that verbs and adverbs better describe reality than do nouns; that "acting consciously" is more defensible than is the noun, "consciousness." But Dr. Bode's discussion gave the most thorough and penetrating analysis that I had yet seen.

I can perhaps better illustrate Dr. Bode's position than state it briefly. The simpler case: As I am about to cross the street, a car comes along but I cannot tell which way it will turn, whether down the side street and so not to bother me, or into my street so as to hit me if I now walk on. Under such conditions I "consciously" stop in my tracks until I can see what the car will do; then I'll know what to do myself. The more complex case: A baseball player, as a ball approaches, sees not simply a ball or even a ball to be caught, but "a-ball-to-be-caught-and-thrown-to-first-base." It is under such conditions that Dr. Bode asserts that "the teleological character" is "the fundamental differentiating trait of conscious behavior." So that conscious control "consists in giving direction to behavior with reference to results still in the future." "To be conscious," he says, "is to have a future possible result of present behavior . . . functioning as a stimulus to further behavior." In this way, "a contingent result somehow becomes operative as a present fact."

When this chapter was written, behaviorism was much to the fore in American psychology, and Watson was trying to formulate a psychology of behavior based on reflexes, native and conditioned. A colleague of Professor Bode at Ohio State, A. P. Weiss, was even more extreme; he asserted that "the behavior of the physicist is just as physical as the physics he teaches." Bode could not stand either Watson's "mechanical character of reflexes" or Weiss's protons and electrons as an adequate account of behavior. No succession of mere mechanical cause and effect steps could, to Bode, explain the observed facts of human behavior. A "conscious" factor that built its program as it went was necessary. "Control" in any full sense is, he maintained, "essentially experimental."

It seems clear that in this 1917 chapter Dr. Bode was building on the foundation of "a universe with the lid off"; and was therein preparing for his later discussions of democracy and moral responsibility, with "the right of the individual to a choice of his beliefs," and "the test of progress" to be seen in "the development of individual capacity." I may add that in all this Dr. Bode was also already concerned to show that Thorndike with his S→R bond psychology belonged essentially with J. B. Watson.

In 1921 Dr. Bode became professor of the philosophy of education at Ohio State University, where he remained until his retirement in 1944. Dr. Hullfish has told you of his work there. It is my deliberate opinion that the general quality of work now being done at the Ohio State School of Education is second to none in this country; and my further deliberate opinion is that Professor Bode's contribution there has been the greatest single factor to bring about this high status. I do not mean that Dr. Bode has told the others what to think—he would be the first to deny such a suggestion, if he could beat them to it. I do think, however, that the effect of his stimulating and critical thinking on students and colleagues has had a very large part in the fine work that is now being done in that institution. His stimulation has been profound and, I believe, crucial.

One very definite line of Professor Bode's interest, as we have already seen, has been on the nature of mind. His 1917 discussion on Consciousness was but an early attack on the problem. In 1921 his *Fundamentals of Education* gives half of its twelve chapters to mind and its problems: The Process of Thinking, Training in Thinking, The Transfer of Training, The Soul-Substance Theory, The Doctrine of Mental States, Consciousness as Behavior. Some of this we will note further in considering a later book.

Reference to Thorndike's S→R bond psychology was made above. Under Dr. Bode's leading (we may suppose), Dr. Hullfish took as the theme of his doctoral thesis a criticism of this S→R bond psychology. Perhaps the most fundamental point of his criticism was the failure of the S→R bond psychology to give any adequate place to conscious choice and behavior. To leave this out is to leave the essential and distinctive human aspect out of psychology. I recall as a then follower of Thorndike my own puzzlement to hear Thorndike thus attacked. As I now see it, there were possibly two Thorndikes. One of them was thus effectively attacked. As I look back on myself, I know that I did not believe what was shown to be implicit in the S→R bond outlook; but I had to admit then and now that many of Thorndike's followers did develop all the mechanical mindedness pointed out by Hullfish and Bode as implicit in the theory. The Watsonian outlook had repelled me from the first; so that I was not long in accepting the Hullfish–Bode position on the S→R bond theory.

In 1929 Bode brought out his *Conflicting Psychologies of Learning*. In this are the various historic theories of mind and learning reviewed and found wanting. In the preface Dr. Bode says, "It gives me pleasure to make special acknowledgment of my indebtedness to the writings of Professor Dewey"; and I myself know that he feels this indebtedness strongly. In fact, in one sense the whole effort of this book is to get rid of the prior inadequate psychologies so as to lead up in the next to the last chapter to "Education from a Pragmatic Point of View."

"Theories of learning," Dr. Bode says, "are embodiments or applications of conceptions regarding the nature of the mind"; and educational practice follows appropriately. Mind existing there in advance, waiting to be trained, leads naturally to formal discipline. A mind composed of sense impressions exalts the role of the teacher and easily formalizes the process of instruction. Behaviorism and pragmatism alike count that the native equipment of the individual mind lies in the nervous system with its inborn tendencies and impulses. These two outlooks differ, however, as to the part played by the conscious factor. For Behaviorism—and for Thorndike—learning consists of coupling fixed stimuli and fixed responses. In fact, Thorndike said that "all learning is analysis." This whole outlook, to Dr. Bode, assumes "a preconceived end to which the pupil is made to conform."

By contrast, Bode and pragmatism count that we must bring the factor of conscious purpose into the picture and use it in essential explanation. What this means for education Bode gives in the following quotation from John Dewey:

> The net conclusion is that acting with an aim is all one with acting intelligently. To foresee a terminus of an act is to have a basis upon which to observe, to select, and to order objects and our own capacities. To do these things means to have a mind—for mind is precisely intentional purposeful activity controlled by perception of facts and their relationship to one another. To have a mind to do a thing is to foresee a future possibility; it is to have a plan for its accomplishment; it is to note the means which make the plan capable of execution and the obstructions in the way—or, if it is really a *mind* to do the thing and not a vague aspiration—it is to have a plan which takes account of resources and difficulties. Mind is capacity to refer present conditions to future results, and future consequences to present conditions. And these traits are just what is meant by having an aim or a purpose. (John Dewey, *Democracy and Education,* p. 120)

Translated into school practice this gives, says Bode, primary importance "to habits as attitudes, with the acquisition of skills as incidental thereto" (*Conflicting Psychologies of Learning,* p. 272). We may call this, he says, "the larger meaning of habit."

"This line of considerations," Dr. Bode goes on to say, "leads once more to the importance of interests in education" (p. 273). "There must be an aim or purpose that is 'internal' to the learning process instead of being imposed from without. This view, it may be mentioned in passing, has a special significance for character education. Moral education requires a social ideal and the continuous exercise of intelligence in the interpretation of this ideal" (p. 274).

> In a word, the concern of education is not with the strengthening of mental faculties, nor with the acquisition and organization of information, nor yet with the formation of S→R bonds, but with the cultivation of thinking. For the power to think is the educational kingdom of heaven; if we seek it persistently, other things will be added unto us (p. 274).

"The significance of this approach to education," says Bode, is that it makes the pupil the real point of departure" (p. 283). "The emphasis on creativeness in learning is a movement away from the idea of conformity, and so requires a different social atmosphere and a social ideal in the school" (p. 284).

Free intelligence working democratically is a matter that has all the while been dear to Dr. Bode's heart.

The whole discussion on conflicting psychologies leads up to this as a climax. "The education that suited the needs of an earlier civilization does not necessarily suit the needs of the present. We have outgrown the classical curriculum, just as we are outgrowing the traditional opposition between vocational and liberal education" (p. 286). "The caste system, symbolized by classical education," has broken down; "the idea of a social order characterized by flexibility and regard for individual opportunity" has been "gaining wider recognition" (p. 287).

Under the influence of science and the direct and indirect changes it brings, the caste system "dualism between culture and vocation is being rapidly undermined." In an earlier day the supreme values of life were located "in the beautiful isle of somewhere," by some in the classical tradition, by others in the heaven of popular religions; and this dualism "pervaded the whole of life: between culture and vocation, between the here and the hereafter, between faith and reason, between intelligence and morals" and latterly, "between science and the humanities" (p. 292).

Under the influence of science our present attitude "is not one of despair but of confidence, of faith in intelligence, of joy in struggle and in the strenuous life. All the old dualisms are going by the board. The emerging ideal of the good life is not static, but dynamic or moving. We are achieving 'a realizing sense' that each generation will be called on to revise its religion, its morality, its social and economic beliefs (p. 294). "The good life is a continuous reconstruction on the basis of sensitiveness to all human values, 'not a having and a resting,' in Matthew Arnold's phrase, 'but a growing and a becoming.'" From this point of view "such facile terms as 'openmindedness' and 'tolerance' are the designations not of virtues, but of vices, unless they are accompanied by an honest effort to remould the patterns of our experience" (p. 294). "More specifically, we are gaining the insight that our educational program" must be "tied up with a social program. The full, rich life—the good life—that education is to help us secure requires a social order in which the individual can attain a maximum expression of capacity" (p. 295). And this "is essentially what is meant by the ideal of democracy."

Thus Dr. Bode finds "the supreme task of education" is to help bring such a "development of civilization" as will effect "the progressive liberation of intelligence." In this way "man's advent on this planet takes on the quality of a great experiment," with "no assignable limit" and "no assurance that anything which we now hold sacred will remain permanently so." "This attitude or point of view becomes the guiding principle in curriculum construction, in classroom method, and in administration, with the cultivation of skills and the fostering of intellectual interests as derivative results."

With these things in mind Dr. Bode concludes this book with the bearing of the whole discussion on (1) "the selection and organization of subject-matter" and (2) "on teaching method." I may say, parenthetically, that in thus getting his "subject matter" first in hand and then "teaching" it is found at least an emphasis in which he and I have differed; but this is no time to discuss such, probably not even to refer to it. "If our chief concern," Dr. Bode says, "is to promote insight into the problem of intelligence," "the subject matter will be used" along four lines: (1) to show "how intelligence has operated to change conditions of living"; (2) to show "how the achievements of intelligence have widened our sense of social responsibility"; (3) "attention [is to be given] to the inevitableness of conflict between the new and the old and the necessity of continuous readjustment"; (4) as age conditions, and so on, warrant, "to raise the problem of the nature and authority of standards in the domain of truth and conduct" (p. 298).

"With regard to teaching method . . . the whole purpose of this approach is to stimulate pupils to reorganize the body of their personal experiences." In this "the teacher's function" is "to provide materials and incentives for this process, but not to do the pupil's thinking for him. The school is no place for propaganda or dogmatism" (p. 298). This "problem of intelligence" rightly seen "furnishes a center of reference for the construction of a program of conduct or philosophy of life." And "the acquisition of such a program or philosophy must be regarded as the chief result of a liberal education" (p. 300).

Time does not suffice for so close an examination of the rest of Dr. Bode's writings; nor could your patience survive my labored efforts. The foregoing seemed to give a fairly consistent and illuminating view of Dr. Bode's general thinking in the philosophy of education. A few glimpses here and there will complete what I have to say.

One phase of the problem of democracy and intelligence that has interested Professor Bode through the years has been that of "indoctrination." While he has felt that in "the struggle between 'individualism' and 'collectivism' " the schools must take part, they are confronted by what William James called a forced option: "To remain silent . . . is equivalent . . . to giving aid and comfort to the forces of tradition" (*Social Frontier*, January 1935, p. 18). So that "partisanship in some form is inescapable" (p. 19). But he objects that both sides of the controversy between "individualism and collectivism" take economic life as primarily means. Dr. Bode proposes to shift the discussion by taking economic effort as more than means, as also end, "after the analogy of family life." Concern for the good life of all involved could then be the new way of conceiving the economic and industrial problem. "Moral and aesthetic purposes would become intertwined with industry. The 'spiritual' life would center more and more on the idea that it is a process of the continuous creation and re-creation of new aims and ideals in accordance with changing circumstances and the demands of a constantly expanding social life" (p. 19).

As most now think, our American civilization is a house divided against itself. "The old division between 'culture' and 'vocation,' or between 'mind' and 'matter,' which was conceived in aristocracy and born in selfishness," still survives as a contrast between "the life of the spirit" and "the life of business." If, however, we give up the dualism and grant that "all values are man-made and relative," then "the everyday affairs of practical life become the generating source of these values, and the Protestant dictum that every man is his own priest takes on a new meaning." The results here would be far-reaching.

"For instance, in education the important thing . . . is . . . 'growth.' " We secure this "by encouraging pupils to engage in personal undertakings in which they learn to rely on their own intelligence." "With increasing maturity" they would thus deal with the current problems of social life; "the result [of this] is growth, regardless of the outcome [of their thinking]. The whole business becomes hypocrisy if it is decided in advance which conclusions are to be reached."

The indoctrination point at issue in the *Social Frontier* inquiry, which evoked the discussion just given, is thus answered. The school properly "encourages free discussion and respect for personality; it disapproves of intolerance, it fosters habits of self-reliance instead of unquestioning obedience; it affords glimpses of how man may build for himself a new heaven and a new earth." It expects "the independent [and personal] reconstruction of the confused and contradictory beliefs which every individual acquires by virtue of his membership in the social order." In these matters "the teacher has fulfilled his obligations if he provides the conditions for sincere and careful thinking, without assuming responsibility for the outcome. Faith in democracy requires submission to this test without hedging or qualifications" (p. 22). And if I may quote from a later *Social Frontier* statement of Dr. Bode's: "A program to promote democracy by a process of conditioning is licked before it starts" (5:40).

If any one word could be taken to represent Dr. Bode's dominant outlook on life, that word would probably be "democracy." In a later *Social Frontier* discussion Dr. Bode gives a notable statement on "authentic" democracy. The assumptions back of "liberty" and "equality of opportunity," he says, negate for us the idea that "the American way of life" is some kind of authoritarian outlook. Instead, he says, "the assumption is, in brief that the supreme test of progress lies in the development of individual capacity and not in conformity to any authoritarian standard. America meant opportunity; and opportunity, in turn, meant a great deal more than the chance to accumulate wealth. It meant the opportunity for every man to make something of himself; to rise to the full stature of his manhood, to develop his inherent capacities through the exercise of initiative and resourcefulness and through the assumption of full responsibility for his activities" (5:104).

One final word regarding Professor Bode's philosophy. The discussion just given arose out of a demand that the school educate for a more collective type of economy than has hitherto prevailed. This allowed Dr. Bode to make the further remark that while the teacher "will recognize that the economic problem is presumably the most *urgent* feature of our present-day situation, he will find no reason for concluding that it is the *central* problem. The central problem is the whole issue of authoritarianism. . . . There is considerable reason to suspect that the hangovers of theological tradition perpetuate the attitude of authoritarianism and thus obscure our view of the meaning of democracy" (5:107, January 1939).

I wish before I finish I could say an adequate word regarding Dr. Bode's ability to enliven his talks and lectures by a ready wit and amusing pertinent quotations. Only Professor Bode himself can adequately illustrate this. I hope that during the talk he is to give you will have abundant opportunity to see and note what I here have in mind.

I apologize for such a long paper. I feel, however, that the subject deserves it; I am sorry that the analysis could not have been more fittingly presented. I may sum up the whole in another's words regarding another man:

> He is genuinely penetrating and illuminating. To read him is an intellectually stimulating experience [to hear him is more so]. One learns; one deepens in understanding; and, when in disagreement, one sharpens and clarifies one's own opinions.

Education for Freedom

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THE American people take a large and justifiable pride in their tradition of liberty and democracy. It has been called the Great American Dream and our chief contribution to the civilization of the world. In the words of Lincoln, this nation was conceived in liberty and dedicated to the proposition that all men are created equal. In the past this tradition was the embodiment of a faith which was simple yet dynamic, and which proved to be adequate for the emergencies of our national history.

During recent decades, however, this faith has been disturbed by doubts. Perhaps our faith is not less strong, but our vision is less clear. The earlier simplicity has been lost. The unprecedented complications in both our domestic and our foreign affairs have become a threat to our sense of direction. "Liberty" and "democracy" are becoming slogans rather than guiding principles. The current confusion as to what we mean and what we want is at the moment the supreme threat to our future as a nation. It is high time to take stock.

The reason for the present state of affairs lies in our history. To the early colonists America was a symbol of escape from religious and political and economic oppression. Moreover, the conditions and circumstances of the New World operated as a disruptive influence on the customs and modes of thinking which they had brought with them from Europe. All forms of control tended to relax in the new surroundings, where opportunity beckoned from all directions to those who were discontented. America was a free country in the sense that liberty became identified with emancipation from unwelcome restrictions.

Apart from the fact that it prepared the way for the separation of church and state, this limited and negative conception of liberty naturally had little direct influence in determining the quality of education. In general our public schools followed the familiar pattern of polarizing elementary education on the three R's, and advanced education on the classics and mathematics. A faith in education was generated, however, which was extraordinary. In part this faith was a recognition of the fact that education had a direct utility in this land of opportunity. But it also reflected an uncritical assumption that education would automatically operate so as to liberate intelligence for the improvement of human life. Perhaps this assumption explains the curious fact that our faith in education was combined with a lack of faith in educators. Teachers were just purveyors of information; like mail-carriers and department store clerks, they were indeed engaged in a useful occupation, but it was an occupation which did not require any high order of creative talent. It is significant that when Woodrow Wilson first ran for the Presidency, the opposition tried to discredit him by constantly referring to him as "Professor" Wilson.

This faith in education on the part of the typical American was essentially just a corollary of his faith in himself. Give him the tools and he would undertake to do the job. He was a "practical" person in the sense that this confidence in himself was reflected in his thinking and his action. Traditional beliefs and controls which did not harmonize with this confidence were treated with indifference or were rejected outright. This attitude is illustrated by the reaction of the man who had the doctrine of predestination explained to him. When he finally grasped the idea that, according to this doctrine, the Lord had laid out the entire scheme of things in advance, he dismissed the subject with the remark, "The American people would never stand for anything like that."

Another aspect of this faith was a spirit of unbounded optimism, a serene conviction that a new era had begun to dawn. With the liberation of intelligence, poverty and disease would be eliminated; universal education would put an end to exploitation and tyranny all over the world; communication and transportation would draw the ends of the earth together in bonds of common interests and common purposes; wars would become merely a memory of the dark ages from which we were at last happily emerging. Occasional dog-fights might still occur, of course, but large-scale wars would become a thing of the past. Such wars would be too expensive and too devastating, and, besides, they would not make sense.

It was a lovely dream while it lasted, but we now know it was just a dream. In retrospect the optimism looks like a fool's paradise; the vision of a straight road to a kingdom of heaven on earth appears to have led us into a blind alley instead. It is not necessary to do more than mention the excesses and brutalities which flourished under the cover of this optimism, the disillusionment which resulted from the two World Wars, the Great Depression, and the present tangle of our domestic and foreign affairs. In the sober light of the morning after we can understand why a prominent British clergyman has pointed to the United States as "a conspicuous illustration of neglecting the moral factor in life."

II

In brief, it seems necessary to conclude either that the ideal of liberty was a mistake or that it needs to be re-examined and reinterpreted. We must abandon the lighthearted assumption that our desires and aspirations can be trusted to behave themselves if they are turned loose. It simplifies matters, indeed, to assume what the philosophers call a "pre-established harmony" between our desires and moral ends. Even the Pilgrim Fathers seem to have flirted with this idea when they argued that the pursuit of wealth would automatically be productive of good, since it encouraged the virtues of industry and thrift. A British moralist once even went so far as to advance the thesis that "private vices are public benefits." From this point of view the concept of liberty is not in serious need of defense. All we need to do is to remove restrictions and let nature take its course. This notion, however, has become untenable. To paraphase Scripture, any resemblance between serving God and serving mammon is purely coincidental. Such coincidences can happen, of course, and when they do they may bestow a moral halo where it does not belong. This is illustrated by the story of the colored man who was told by his employers that they would foot his bill at a church social, which was being held to raise money for religious purposes. With this understanding, he went to work with a will. As he reported afterwards: "I done near busted, but I was eatin' and drinkin' for the glory of the Lawd."

The assumption of a pre-established harmony is a tacit recognition that the concept of liberty cannot provide controls as long as liberty is identified with absence of restriction. It is not surprising, therefore, that we should be urged in various quarters to return to the past for "the moral factor in life"—to the faith of the fathers, to old-fashioned conviction of sin, to religious instruction in the schools, to the wisdom of the "hundred best books." The time has come, so we are being told, to emulate the example of the Prodigal Son. "Back to your tents, O Israel."

III

Perhaps so. It is doubtful, however, whether the tents are still habitable; in other words, whether a return is really possible, without repudiating our national ideal of liberty and democracy. The moral factor in life, so it is assumed, must be derived from some theory regarding the nature of the universe or the cosmic order, or from what we may call, for convenience, the eternal verities. It has always been so in the past. Men have always tended to take for granted that the pattern for right living, the pattern for right and wrong, is set for them by the unalterable nature of things, which they must recognize and obey.

If this is the case, then the road to salvation clearly does not lie in throwing off restrictions but in getting into line with the eternal verities. By a kind of paradox, liberty turns out to be a surrender to the authority of the eternal laws of the universe. Men are not free, so it is argued, as long as they remain in bondage to ignorance and superstition, however much they may think that they are free. Nor are they free if, like children, they can be seduced by any chance desire or passing whim. As William James once said, children are not free but are the slaves of every stimulus that comes along. The truth is what makes us free, because it enables us to subordinate the impulse of the moment to a higher law.

Truth, then, turns out to be a demand for conformity. The conformity which is demanded may consist in obedience to the will of God, or the cultivation of "Reason" as the supreme good, or loyalty to certain traditions, or—more recently—dedication to the idea of racial supremacy or of the class struggle. These alternative views have in common the belief that morality must trace back to eternal verities in some form. Their differences spring from disagreements as to what these eternal verities are. But in any case liberty becomes subordinated to the idea of conformity and obedience.

IV

The practical significance of all this becomes apparent when we turn to educational applications. If morality is dependent on eternal verities of some kind, it appears to follow that these verities should be taught as a part of the curriculum. For example, if religious sanction is required, provision should be made for religious instruction. Similarly, if we interpret the cosmic order as constituting an endorsement of racial supremacy, or of the class struggle, or of eternal truth as embodied in our great literature, it becomes obligatory to organize and conduct education accordingly. It is difficult to see how there can be any escape from this conclusion.

To a social order which is authoritarian in the sense that it prescribes the eternal verities on which moral and spiritual values are to be based, this conclusion presents no problem. Our American democracy, however, is different. Such prescription is precisely the kind of tyranny from which our brand of democracy was supposed to provide an escape. We are committed to the view that all doctrines of eternal verities, as applied to moral standards, have an undertow toward dogma and regimentation. This undertow is away from the principle of separation between church and state, away from the sentiment of Jefferson's declaration: "I have sworn on the altar of God eternal hostility to all forms of tyranny over the minds of men." What this seems to mean is that our democracy cannot maintain a system of public education at all, except on the assumption that morality is not necessarily dependent on belief in eternal verities, but can have a basis of a different kind.

The current confusion as to the meaning of liberty and democracy is due primarily to the fact that this assumption is not clearly recognized. "Liberty" has been taken to mean, not that democracy has a distinctive and competing conception of morality, but that each person was to have maximum freedom in selecting his own set of eternal verities. Educationally the matter of selection was left pretty much to the individual teacher, and to parents, and to the impact of pressure groups on the local school boards. Or to put it differently, the various kinds of eternal verities were left to compete with one another and to present divergent interpretations of the meaning of liberty. A recent example of this kind of thing is the manner in which present-day Russians use the terms "liberty" and "democracy."

All this is just another way of saying that we have been disposed to stress the negative aspect of liberty and let it go at that. Men were supposed to be free if they could select their own systems of eternal verities. If we do not take a further step, however, we are still faced with the necessity of choosing between a morality that is based on a theory of the universe and no morality at all. The enduring significance of the American Revolution is that it prepared the way for an alternative approach to the problem of morality. It did so by presenting an ideal of liberty which is not content to let men choose their own form of bondage, but which gives them access to moral values and moral standards that require no allegiance to eternal verities of any kind.

This alternative approach is indicated by the doctrine of the Founding Fathers that government must rest on "the consent of the governed." This doctrine carries the implication that morality is a matter of social relationships, that it relies solely on "empirical" or "secular" procedures and therefore requires no theological or metaphysical basis. It means that the problem of making men free is a problem of continuously readjusting the conditions or circumstances which bind them together in a common life. It means that liberty has a positive as well as a negative implication. It means—to repeat—that morality is not transcendental but social in its origin and in its validity.

V

From this point of view the reference to eternal verities becomes wholly irrelevant. The empirical approach changes the whole perspective and the whole method of procedure. Whenever there is a problem of liberty, the first step is to inquire into the conditions or circumstances in which it originates. The demand for liberty does not arise in a vacuum, but occurs whenever cultural conditions become a serious and irritating obstruction to the normal endeavors of individuals to find an outlet for their desires and aspirations within the social organization to which they happen to belong. When things get bad enough, they lead to protest and revolt, as happened, for example, in the period preceding the French Revolution. A blanket demand for liberty would not make sense; the demand gets its meaning and point of reference from the interaction between human nature and cultural conditions.

The demand for liberty, therefore, is not met either by the simple process of removing restrictions or by consulting the eternal structure of the universe. Men are not made free either by being let alone or by being required to conform to a dogma. The problem of liberty is a problem of improving specific conditions. It calls for the continuous modification or reconstruction of the social organization in order to provide for individual opportunity through wider cooperation or the extension of common interests. The nature of such reconstruction must be determined, not by preconceptions regarding human nature or cosmic nature, but though a quest for wider understandings and wider cooperation, by means of discussion and agreement, which is called the democratic process of "the consent of the governed." Liberty thus becomes a guiding ideal or guiding principle for the continuous remaking of social relations, in exclusive reliance on the democratic process and scientific method.

It is true that the Founding Fathers did not formulate the concept of liberty so sharply. They seem to have been under the impression that their conception of government could claim the happy advantages of both cosmic sanction and empirical procedure. This lack of clarity, however, should not prevent us from recognizing the fact that they started us on the road toward a distinctive conception of liberty. The more precise formulation, together with the more precise applications to education, has become our responsibility. This is especially true at present, since the question of separation between church and state is coming to the fore again. It is hard to see how the American Dream can come to fruition on the basis of the theory that moral values require cosmic endorsement in order to give them authority. This authority must come from their relevancy to the purpose of making men free through changes in social relationships. The solution of the moral problem lies in the future and not in the past. It lies in the painstaking study of maladjustments and not in the contemplation of the cosmic order *sub specie* *aeternitatis*. Its reliance is not on conformity but on method, so as to secure the liberation of intelligence for the continuous improvement of human life through the medium of social relationships.

The nation which the Founding Fathers brought into being has been called a large-scale experiment in self-government. It is that, but it is also a great deal more. In its implications it is a revolution in our Western culture, in our standards of morality, in our outlook on life. Our traditional culture has become so completely assimiliated to the doctrine of eternal verities that any other approach is still being interpreted as an attack on morality itself. The fact that scientists and inventors do not consider it necessary in their work to take account of any eternal verities is brushed aside as irrelevant. It is considered irrelevant because the realm of science and invention is supposed to be wholly distinct from the realm of moral values. This dualism of two worlds has become so ingrained in our modes of thinking and acting and in our institutional life that there is no possibility of developing a genuinely democratic system of education without taking account of it and at some points coming into conflict with it.

At all events, the issue is beginning to take shape. As Dr. Dewey has insisted with so much emphasis,[1] the deepest issue confronting the present generation is the moral issue—the issue of the origin and nature of moral standards. The issue can be stated simply. Either the controls for moral conduct are derived from non-scientific theories regarding the cosmic structure of things, or they come to us from empirical observation and controlled inquiry into the physical and social conditions of modern life. Whether or not there are other roads to truth besides scientific method, we cannot concede that there is any other road to moral insight without betraying our national ideal of liberty and democracy.

VI

Our most urgent educational task is to see to it that the issue is met squarely. What we need is fewer eulogies and more understanding of the concept of liberty. All too often the eulogies take us back to the doctrine of eternal verities. It is claimed, for example, that men are entitled to be free because liberty is an inalienable right with which they have been endowed by the Creator, or because the craving for liberty is an "instinct," or because liberty is necessary for a life of Reason, or because the ideal of liberty has been hallowed by tradition. These are all appeals to eternal verities, of one kind or another. In philosophical terminology, liberty is treated as an absolute, which means that the consequences of our acts may be left to take care of themselves. In religious language it means that we continue to lean on the Everlasting Arms.

When this happens, the concept of liberty becomes a tool for custom and special interests. In economics, we insist on "free enterprise," unhampered by government regulation, let the chips fall where they may. As a sturdy adherent of this view once insisted, we got off the right track when the government took over the post office. In labor relations we need only the principle of collective bargaining, because industrial peace will result eventually if we extend the principle of horse trading to the conference table. In foreign relations we take our stand on "sovereignity," with the implication that moral obligations do not extend beyond the national frontiers. In education we may permit a pupil to act like a bully because this will develop his capacity for leadership.

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[1] John Dewey, *Freedom and Culture*. See especially chapters 5, 6, and 7.

One of the major consequences of the present situation is that this nebulous concept of liberty has become a serious obstacle to what is called a liberal education. Any set of prejudices which a teacher or student may happen to have can invoke the name of liberty, just as the devil can quote Scripture to his purpose. Tradition and liberalism, or the spirit of democracy, have become hopelessly intermingled. If liberal education means intellectual orientation, or reconstruction of outlook, or progress toward a basic philosophy of life, our showing is perhaps as bad as is to be found anywhere in the educational world. Despite all our educational advances, our young people are disturbingly lacking in clarity and depth of conviction. They do not escape from the cleavage in our culture. They do not really know what to believe—in religion, politics and economics. What makes this especially serious is that they are not clearly aware of the source and nature of their confusion. Perhaps they are a bit like Daniel Boone, the great explorer, who would not admit that he had ever been really lost, but did admit that there was once a period of about three days when, as he said, he was "very much bewildered."

VII

On the basis of this approach, our educational task has two major aspects. One of these is to bridge the present cleavage in our culture by remoulding the attitudes, the habitual reactions, with respect to moral standards, which have been nurtured by the doctrine of eternal verities. There is still no adequate carry-over of empirical method, with which science has made us familiar, into the domain of moral conduct. When we enter this domain, we leave the empirical approach behind us, with the result that we lose our sense of direction. We take for granted that we are abreast of the times if we are acquainted with current achievements in science and industry and if we ride about in motor cars. Being up-to-date in such matters, however, is quite compatible with an outlook on life which has its roots in the tradition of eternal verities and is completely insensitive to the idea that men can be made free through the instrumentality of social relationships. In part, therefore, our educational task is to make the empirical attitude toward moral problems as natural and spontaneous as it has become toward those of engineering and agriculture.

It may be fairly claimed, I think, that we have made progress in this direction, and in some instances perhaps considerable progress. By and large, however, the reform movements in education have suffered from the handicap that this part of the task has been undertaken in isolation from the other part, which calls for the intellectualizing of the democratic process, so as to show that it is based on a distinctive and competing conception of moral values and moral standards. We do not escape from tradition by the simple manoeuvre of appealing to the interests and creative capacities of students, important as they may be. We do not set the pupil free by treating him as though he were a detached individual. To do so is to invite social maladjustment. The life of the individual is bound up with that of the social order to which he belongs; which means that there can be no worth-while personal development apart from improvement in the quality of social insight and social ideals, so as to remove this inner cleavage. The question of the origin and nature of moral standards thus pervades the whole system of democratic education, from the bottom to the top.

Where there is overemphasis on the detached individual, we play into the hands of tradition by leaving its conception of moral values untouched. We then also tend to place too much reliance on machinery, in the form of teaching materials and methods of instruction. The point is not that curriculum making and methods are unimportant, but that they are no substitutes for insight into what constitutes democratic education or education for freedom. The teacher who knows what he is about is more likely to make progress toward his goal than the one who does not, despite the conditions under which he has to work. Of him it may be said that all roads lead to Rome and that all things must work together for good for those who love the Lord.

One invaluable resource for cultivating democratic disposition is, of course, to organize the school in such a way as to give practice in democratic living. This disposition can be given a wider range of application by making the school an extension of community life. In the subject matter areas there is constant opportunity for cultivating the intellectual insight which must go along with attitude or disposition and which inevitably leads to a critical examination of eternal verities in every field. Modern mathematics, for example, with its conception of axioms as "postulates," offers a rare opportunity for seeing at first hand its challenge to the conception of eternal verities, and thus acquiring a deeper understanding of scientific method. In the physical sciences the same end can be achieved by taking note of the battles with eternal verities which they had to wage along the road to their present position of prestige and power. In history the problem of human liberty in its relation to eternal verities can be made a point of reference all along the line. This problem is also of supreme importance in art and literature, now that "we are beginning to realize that emotions and imagination are more potent in shaping public sentiment and opinion than information and reason."[2]

These comments are merely rough indications of the task which still lies ahead. Democracy can be satisfied with nothing less than a system of education which embodies a distinctive way of life or moral outlook as clearly and unambiguously as in the case of rival systems. Our present culture is a house divided against itself. It holds to the tradition that morality rests on cosmic sanction and also that it is a product of social living. For this reason a democratic program of education can go a considerable distance without arousing too much opposition. In the end, however, the cleavage must come out into the open, since an understanding of the cleavage is essential for an understanding of the present troubled period in our national life.

We are coming to the parting of the ways. We must either move forward toward a positive social and educational interpretation of the concept of liberty, or we must discount this concept as a product of our exuberant national adolescence, which means that we must look to the past for standards. There has never been a time in our history when education has had a comparable opportunity to justify our faith in liberty and democracy as a new road to peace on earth and goodwill among men.

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[2] Dewey, *op. cit.*, p. 10.

Bode in American Philosophy of Education

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Before commenting on the paper read this afternoon, I want to speak of my personal indebtedness to Dr. Bode. I have learned much from his writings, and I have also gained much from discussions with him. I believe that both American democracy and American education have a better philosophical basis because of his important contributions.

Dr. John Dewey once told a seminar that it is the function of the philosopher "to put what everybody knows into words that nobody can understand." Fortunately Dr. Bode, in his writing, fails to pass this "pragmatic" test. He is guilty, along with William James, of the "immorality" of a persuasive, vivid, homely, simple, and dramatic style. He has the Jamesian ability to put uncommon meanings and profound insights into the simple and familiar language of the man in the street. He knows what he means, and he knows how to communicate that which he means.

But, whereas James was "tender-minded," somewhat impressionistic, and not always logically systematic and consistent, Dr. Bode has been tough, rigorous, and uncompromising in tracing out implications of new perspectives for old patterns of thought and interpretation. In this respect, he is much more in the logical pattern of Dewey than of James.

I pause to mention only two of the fields in which Dr. Bode has made major contributions. First, in the field of the psychological analysis of human behavior and learning. If we are beginning to achieve a conception of mind and learning that avoids the old dualisms, on the one hand, and the atomism and mechanicalism of the physiological behaviorist, on the other, we owe much of this to the thought and formulations of Dr. Bode. As against the physiological reductionist, he has held that mind is real; as against the mentalist, he has held that mind is not a substance, or an entity, but a kind of purposeful functioning in the environment through which means are consciously developed for the attainment of anticipated outcomes.

His article on "Consciousness and Psychology," printed in the volume, *Creative Intelligence*, is a pioneering piece of work, and I consider it one of the most suggestive papers I have ever read on the theme. His *Conflicting Psychologies of Learning*, and his *How We Learn*, as well as his *Fundamentals of Education*, are books that any scholar would be proud to have on his shelf of works.

Of equal worth are his contributions in a second field. I refer to his many articles and books on the meaning of American democracy, and the implications of democracy for the theory and practice of education. Better than most, Dr. Bode has perceived that democracy and experimental science are organically associated, and that taken together, they demand a new orientation to the educational enterprise. He has ably and fearlessly called attention to the conflict of these newer outlooks and practices with the absolutist presuppositions of the Western moral and philosophical tradition.

Dr. Bode was also among the first to realize that there were certain harmful tendencies in an extreme wing of the progressive educational movement. His challenging *Progressive Education at the Crossroads* lays bare the fallacy in any theory of education, which out of zeal for "respect for the child" would ask the immature—those with the least experience—to take over their own education. Dr. Bode has consistently recognized that education is a moral undertaking concerned with values, and he has nothing in common with a Rousseauism that holds that these values develop spontaneously by a process of unfolding from within. He has always been willing to be counted among those who hold that education is a process in which the experiencing of the young is weighted and directed. He has also been numbered among those who believe that adults will do their educational work better if they know what they are about—that is, if they know the results they are seeking and the means by which these results are to be attained.

This leads me to the paper Dr. Bode read at our afternoon meeting. In this paper he states the essential meaning of democratic education. As I understand him, an education that is democratic and scientific in character is concerned with the liberation of intelligence. This liberation is achieved through a process of continuous reconstruction in which meanings are clarified and integrated, and new powers of control are developed—this reconstruction is a social as well as a personal affair, and is governed by the desire to beget understanding and cooperation in the group through the widening of the area of shared interests. Today a variety of reactionary developments in America, and in the world, stress the pertinence and the importance of these emphases.

I have certain difficulties with Dr. Bode's conception of democratic education, but they relate primarily to its application and to its adequacy, not to the importance of its central meaning. I shall get to the heart of these difficulties by putting three questions to Dr. Bode.

1. Dr. Bode, you are for adult guidance. Just what is the role of the educator in this process by which the young grow in intelligence and liberty through the continuous reconstruction of their experience? As I understand your position, you hold that an educational reconstruction meets the test of the democratic criterion only when carried through by each person for himself. If this is so, what role, then, do adults have in the process of education?

2. In your conception of education, the method of democratic, experimental inquiry is held to be the procedure by which intelligence is nurtured and liberated. This method, as you define and describe it in your paper, seems to involve a naturalistic orientation—meaning by naturalism the denial of cosmic purpose. Does this imply that a Theistic belief contradicts the presuppositions of science and democracy? If so, when we educate for the wholehearted use of democratic and scientific procedures, do we inevitably commit the young to a naturalistic outlook? To put the question differently, is a naturalistic outlook a component of the experimental, democratic method—binding on all who use it—or is naturalism a philosophical point of view that some experimentalists find adequately grounded and, therefore, adopt as a personal belief? Many would hold that method relates to the way beliefs are established, reconstructed, and maintained, or held, but that method in and of itself cannot dictate the content or substance of any particular belief.

3. Science is prized because it is a tested and socialized method of getting dependable knowledge. In education in the physical sciences, these tested findings that we call "knowledge," as well as the method and techniques of inquiry, are communicated to the young. Have we reason to expect that through the use of empirical, experimental procedures in the social, moral, economic, and political affairs "knowledge" can

also be gained? If knowledge is thus achieved in these areas, would it be compatible with your view of desirable education to communicate these verified conclusions with their associated perspectives to the young? Or, from your standpoint, would the effort to communicate this kind of knowledge to the young be a form of imposition and enslavement in absolutes?

In sum, Dr. Bode, even though you have formally "retired," your colleagues still think that there is important work for you to do, and they desire to have you continue in your distinguished role of a teacher of teachers.

Questions Concerning Bode's Position

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I FIND myself in agreement with Professor Bode's central article of faith as I understand it. I, too, believe in extending the method of experimental inquiry effectively into the whole range of human deliberation by which problems are solved and differences and confusions resolved. This method of experimental intelligence must find its way out of the laboratories and the universities into all processes of moral and political choice and decision. And education should play a major role in this universal institutionalization and humanization of experimental intelligence.

But, as I think about the current social–political context in which this advance must be achieved, if it is to be achieved at all, Professor Bode's analysis offers difficulty at a few points. I cannot help being impressed that sizable numbers of persons and groups, persons and groups with great power, in our country and our world, probably a great majority at present, do not agree with Professor Bode and me. Such a condition, which I feel certain will not be seriously questioned, seems to raise difficult problems for a strategy of democracy and of democratic education—problems which Professor Bode's analysis may not have weighted seriously enough. I hope to open up two lines of questioning which further discussion may help to clarify.

In the first place, Professor Bode has disclaimed that his position relies upon "cosmic sanction" or upon any conception of "cosmic order." He seems to have sought to disengage his philosophy of education and society from "metaphysics" and counsels an "exclusive reliance on the democratic process and scientific method." Now I would question whether Professor Bode's advocacy of the centrality of the authority of scientific method is independent of an underlying "metaphysics." I believe rather that the persuasiveness and plausibility of Professor Bode's faith do depend upon certain underlying assumptions about the nature of the world and of man. Without the underpinnings of some sort of "evolutionary naturalism," I doubt if Professor Bode's faith in "exclusive reliance on the democratic process and scientific method" will prove fully convincing to distraught and confused persons in our time, particularly in areas of moral and political decision. I cannot spell out all of the assumptions which belong to this world view. Let me mention only a few—an "open" as opposed to a "closed" universe, the basic continuity of man with nature, the pluralistic character of both social and non-social reality.

I am anxious to point this out, not just to ask Professor Bode to confess that he is a naturalist, but for a further and more important reason. There are many other points of view, alternative faiths, alternative world views, powerfully at work in our nation and our world today. These perspectives clash with Professor Bode's point of view, not alone or primarily at the level of "positive knowledge" but at the underlying "metaphysical" and "ideological" level. Now Professor Bode believes that the extension of his faith in scientific method is essential to democratic advance. And I believe he is right. If we believe in such an extension of democracy and if this extension depends on some reconstruction of outlook on the "metaphysical" and "ideological" level, we can hardly be indifferent to this clash of alternative world views. Our method of intelligence and its related discipline must be widely enough conceived to include methods for building and rebuilding consensus at the "metaphysical" and "ideological" level of belief.

The first question I should like to raise may now be stated in this way: Is the method which Professor Bode wishes to build into all processes of human deliberation wherever carried on, the scientific method, adequate by itself to give disciplined guidance to persons and groups in the reconstruction of basic world views and related basic norms of conduct, as people move toward more common assumptions which will support the democratization of all human life? Does not our conception of the method of intelligence need to include deeper cutting methods of inter-persuasion and social therapy, adequate to building consensus sufficient to support cooperative methods and processes of inquiry into commonly defined problems?

I have raised one question which asks for a re-examination of the methodology by which we seek to guide the deliberate diffusion of basically differing cultures—a problem which involves the *long-range* goal of any serious educational processes in our world today. I want now to test Professor Bode's analysis in terms of the *short-run* strategy of democratic advance. It is a commonplace, but an important one, to remember that the very institutional conditions which make democratic operation and advance possible are in jeopardy in the world today. We need to build effective agencies of supra-national order if past democratic gains in various nations are to be conserved and new democratic advances achieved. Doesn't this demand selective cooperation in the short run between experimentalist liberals and persons and groups who may believe in some "eternal verities"? And, if we are not helped to discover reliable and valid bases for such selective cooperation, are we not failing to conserve and to construct the institutional conditions on which the survival and advance of democracy depend?

Now when Professor Bode seems to unite all believers in "eternal verities" as equally foes of democracy and liberty, it disturbs me. Those who find their "eternal verities" in the "will of God" or in conformity with "Reason" or in "racial supremacy" or in a struggle to advance the interests of the proletarian class seem, as Professor Bode treats them, equally proponents of blind conformity and obedience and equally foes of democracy in the current situation.

I wonder if this gives us a very helpful basis on which to select fellow absolutists for at least limited cooperation in the here and now. I wonder if analysis of the current national and world situation would support this identification of all absolutists in terms of an effective current strategy of democratic advance. I wonder if all authoritarianisms should be equally anathema to the devoted democrat. As a specific example, I wonder if equation of Fascist and Communist absolutisms isn't confusing our American political thinking at the present time—narrowing the area of possible international cooperation in democratic advance, leading to support of Fascist or semi-Fascist forces at times as at least "no worse" than Communist forces, blinding us at points to powerful authoritarian and anti-democratic forces in our own nation, and so on. I wonder if we do not need more careful discrimination, by democratic educators and by those whom we teach, among authoritarian groups and viewpoints with which we can and cannot cooperate in building bases of world order and security, bases essential for the future of democracy. Professor Bode's analysis seems not to help at this point.

I may summarize my two questions briefly. I have been asking whether Professor Bode's central and exclusive identification of democracy with the method of science and with anti-absolutism has not led to a diversion of attention from two pressing problems of democracy and of democratic education in our time: (1) the problem of formulating a methodology adequate to build consensus among persons and groups at the level of "metaphysical" and "ideological" clash and conflict, and (2) the problem of finding reliable bases for selective cooperation between experimentalist democrats and various "authoritarian" groups in solving pressing problems of national and world reconstruction.

PAUL MONROE

Paul Monroe, 1869-1947

THE name of Paul Monroe must be placed among those of the great pioneers and creators of the graduate study of education who worked under the leadership and with the encouragement of the late Dean James Earl Russell in the years following 1898.

Professor Monroe began a connection of forty-one years with Teachers College as an instructor in history, and after two years he transferred his interest and activity to the history of education. This subject was one of the earliest and most obvious of the scholarly disciplines to be adapted to the study of education, and by the time that Professor Monroe entered the field substantial work in it had been done by European, particularly German, scholars. In the United States, however, the history of education had remained a relatively immature subject, pitched to the level of normal school and undergraduate instruction. Paul Monroe brought to the study of the history of education the equipment of the historian's workshop, which he had acquired during two years of graduate study in history and sociology at the University of Chicago from 1895 to 1897. Working in original sources and treating education in its broad social and philosophical setting, Professor Monroe labored with prodigious energy and single-minded effort at first upon the general course in the history of education. Milestones in this phase of his work were the *Source Book in the History of Education for the Greek and Roman Period* (1901), *Thomas Platter and the Educational Renaissance of the Sixteenth Century* (1904), the *Text Book in the History of Education* (1905), and the *Brief Course in the History of Education* (1907).

During these early years there was always a special section of the general course designed for graduate students. Practicums and seminars were conducted for research in special areas and for the assistance of students who were doing doctoral dissertations in the field. In 1905-06 the graduate section of what had come to be called "Education B" was separately listed as Education 201-202. Professor Monroe retained active connection with this course (which underwent some changes in numbering) until 1918-19, and during that period it was indeed the exceptional graduate student who did not come under his instruction.

While the practicums and seminars which Professor Monroe conducted touched at times upon American education during this earliest period of his productive scholarship, it was not until 1907-08 that a practicum entitled "History of Education in the United States" was separately listed. From that time on Professor Monroe expended a large proportion of his time and effort in the collection and analysis of the source materials of education in the United States and guided a notable list of students in doctoral research in that field. Before the results of his extensive work in the history of education in the United States could be given the lasting testimony of print, his energies and time were claimed for other responsibilities and it was not until 1940, two years after his retirement, that he published his *Founding of the American School System*, together with a stupendous collection of source materials in microfilm underlying the book.

Perhaps no better idea of the scope and quality of Professor Monroe's influence can be given than to list some of the students who worked with him between 1897 and 1923 and went from the College to positions of leadership in American education. Among them were: Edwin C. Broome, Henry Suzzallo, Fletcher Harper Swift, Harlan Updegraff, George Leroy Jackson, Edward H. Fitzpatrick, Alexander James Inglis, Samuel W. Brown, Frank P. Graves, William Heard Kilpatrick, C. L. Robbins, William W. Kemp, Edgar W. Knight, Willystine Goodsell, James L. McConaughy, George F. Miller, John F. Reigart, Robert F. Seybolt, Sheldon E. Davis, A. R. Mead, Walter John Gifford, William A. Maddox, Stuart G. Noble, William Sealock, Daniel Bell Leary, Jesse B. Sears, Howard C. Taylor, Forest C. Ensign, and Guy F. Wells.

Along with the activities suggested above, Professor Monroe pushed through to successful completion the universally acclaimed *Cyclopedia of Education* in five volumes, which appeared between 1910 and 1913.

In 1915 Professor Monroe became Director of the School of Education of Teachers College and from that time on his interests lay increasingly in the field of educational administration and statesmanship. When he became the Director of the International Institute of Teachers College in 1923 the direction, but hardly the character, of his activities changed. From then on until his retirement in 1938, such instruction as he participated in at the College was listed under Comparative Education, but it may be said that neither a field of instruction nor a single institution could claim him. His work as a "merchant of light" was the creation of better international relationships and understanding. The scope of his labors was world-wide.

Representative of the activities and interests of this period of Professor Monroe's life are the following. He was chairman of commissions which conducted surveys of the educational system of the Philippines in 1913 and 1925, of Puerto Rico in 1926, and of Iraq in 1933. He was president of the World Federation of Educational Associations, 1931-33 and 1935-43. In 1932 he became president of Robert College, Istanbul, Turkey, and from 1932 to 1935 he was president of the American College for Girls in Istanbul. In addition, he held positions of honor and influence as a member of the governing boards of many foreign educational institutions, and numerous honors were conferred upon him by foreign governments and universities.

To the record of Paul Monroe's prodigious achievement in scholarship and publication, of his creatively performed tasks of administration, and of the rich honors garnered in a long life of happy service to his fellowmen, must be added an appreciation of the man, affectionately known as "P.M.," in the role of colleague, neighbor, good companion, and friend. He had a lively sense of humor, and enjoyed hearing and telling a good story. In his home he was a genial and considerate host, and with the assistance of his charming wife made every party in the big yellow house on Park Hill, Yonkers, something to be remembered warmly and pleasurably. With enlarging contacts and responsibilities, he continuously developed in the qualities of urbanity and human sympathy. Paul Monroe was a scholar and a gentleman.

EDWARD H. REISNER
Professor of Education

Departmental Notes

Office of the Dean

AMONG the educators attending the November UNESCO conference in Mexico City who subsequently spoke, upon Dean William Fletcher Russell's invitation, at the International Lecture Series at Teachers College were: Alexander J. Belford, secretary of the Educational Institute of Scotland; Dr. W. P. Alexander, general secretary to the Association of Local Education Authorities of England and Wales; M. Jean Sarrailh, rector of the University of Paris; Dr. Peter Manniche, principal of People's College, Elsinore, Denmark; Ronald Gould, general secretary, National Union of Teachers of England and Wales, and Dr. John Wishart, president of the Educational Institute of Scotland.

"MARX to Molotov" was the topic of the Dean's talk at the November 7 general session of the annual convention of the Arkansas Education Association.

Institute of Adult Education

ON an extended survey of adult education in the United States, Professor Paul Essert left November 18 to consult professional workers and visit programs in the fields of public school education, university extension, and education in labor unions, industry, and the community.

GLEN Burch of the Institute, and Professor Kenneth Benne were members of the staff at the work sessions planning the three-day conference on adult education held in Baltimore late in October. This adult education group of the NEA is making a cooperative survey of the field in the East.

Institute of Psychological Research

DISAGREEING with the idea that "everybody is entitled to a college education," Professor Irving Lorge proposed that "college education should be for those who profit most from it—probably the ablest ten or fifteen per cent of the population" on the CBS program, "In My Opinion," Thursday, November 6, at 6:15 P.M. Speaking on "Who Should Go to College," Professor Lorge maintained that it is society's responsibility to seek and send the ablest to college, perpetuating itself by finding, fostering, and educating an "aristocracy of ability." "Each person," Professor Lorge said, "ought to be given the quantity and quality of education which would help him or her to realize his or her potentialities."

Division I

Foundations of Education

SOCIAL AND PHILOSOPHICAL FOUNDATIONS

IT was an historic occasion when Professors Emeriti John Dewey and William Kilpatrick returned to Teachers College November 10 to speak during the presentation ceremonies of the Kilpatrick award medal for distinguished service in the philosophy of education to Professor Emeritus Boyd

H. Bode of Ohio State University. Declaring that liberty and democracy have become slogans rather than guiding principles in American education so that confused young people do not know what to believe in religion, politics and economics, Professor Bode traced the American ideal of liberty from the concept of the early colonists to the conflicting ideologies of the present day. Dr. H. Gordon Hullfish of Ohio State also paid tribute to Dr. Bode, and Professor George S. Counts was master of ceremonies.

FROM October 29 to November 4, Professor Edmund deS. Brunner was in the Pacific Northwest for a U. S. Department of Agriculture regional workshop at Washington State College, Pullman, Wash. On November 1, he conferred with the extension staff of Spokane County, Wash., on a new type of survey of the educational program of that agency—a joint project of the County, Washington State, the U. S. Department of Agriculture, and Teachers College. He also spoke at the University of Idaho and addressed the agricultural and home economics extension staff of the State of Washington on "Extension Program Building."

At the annual dinner November 9 of Epsilon Sigma Phi, honorary fraternity of the Agricultural and Home Economics Extension Service, Professor Brunner was awarded one of three Certificates of Recognition for "outstanding service to extension during the war and postwar years."

PROFESSOR Donald G. Tewksbury ended an eight weeks' visit to England as a guest of the Royal Institute of International Affairs, Chatham House, London, on October 9. He attended the tenth international conference of the Institute of Pacific Relations at Stratford-on-Avon as an American delegate. In London, he was invited to a conference on Asia at the School of Oriental and African Studies, University of London. Sponsored by the Fabian International Bureau, the National Peace Council, and the Union of Democratic Control, this conference drew some 250 representatives of European and Asiatic countries.

ON November 4, Professor Harold F. Clark addressed the board of directors and members of the education committeee of the Pasadena, Calif., Chamber of Commerce. His topic was "Education Pays."

PSYCHOLOGICAL FOUNDATIONS AND EDUCATIONAL RESEARCH

PROFESSOR Helen Walker is a member of the national Committee on Education and Training in Statistics which met at Teachers College October 25 and 26. Appointed by the American Statistical Association, the Committee is under the chairmanship of Dr. Francis G. Cornell, former graduate student and now director of the Institute of Educational Research at the University of Illinois.

A member of a special committee of the New York Chapter of the American Statistical Association, Professor Walker is helping in the development of plans for a placement service in the field of statistics. Forms are being prepared, and methods perfected which will facilitate exchange of information as to opportunities and available personnel.

Division II

Administration and Guidance

EDUCATIONAL ADMINISTRATION

AMONG recent speeches by Professor John K. Norton was an address delivered before the Connecticut Education Association October 31 in Bridgeport on "The Improvement of Education Through Professional Organizations," and a lecture to the Parent-Teachers Association at Corpus Christi Church, New York, N. Y., November 12 on "Federal Aid for Denominational Schools—Pro and Con."

Professor Norton was recently elected chairman of the board of trustees of the Society for the Advancement of Education, Inc.

UNDER the auspices of the department, two practicums in school administration have been held on the general topic, Special Problems in Education in a Period of Inflation. On October 2, 16, 23, and 30, this theme was dealt with as it affected the financing of school building programs, and on November 6, 13, 20, and December 4, as it affected the financing of other phases of an educational program.

LATE in November, Professor Daniel R. Davies served as consultant to the Mahopac, N. Y., Board of Education. He also addressed the Bergen County, N. J., Elementary Principals Association on "Some Tasks Facing Educational Associations," on November 18.

DR. Howard G. Spalding, who is teaching a course in high school administration, was speaker at a meeting of the Vermont State Association of Mathematics Teachers October 10 in Burlington, and addressed a luncheon meeting of the Vermont Headmasters Association the same day.

GUIDANCE

PROFESSOR H. D. Kitson, Professor Donald Super, and Mr. Charles N. Morris, an assistant, will head the delegation of Teachers College students majoring in vocational guidance attending the annual convention of the NVGA at the Hotel Stevens in Chicago, March 29 to April 1. The customary Teachers College alumni dinner will also be held during the course of the meeting.

AT a banquet of the New England regional conference of the NVGA December 5 in Providence, R. I., Professor Super spoke on "What Next in Guidance."

VISITING the Bureau of Labor Statistics and cognate agencies in Washington, D. C., for two days in October, Professor Kitson and Mr. Morris were particularly interested in information which would help in the development of research projects in the field of occupational trends.

Division IV

Instruction

CURRICULUM AND TEACHING

EARLY in December, Professor L. Thomas Hopkins was a visitor in the school system of Atchison, Kan. He also addressed members of the Atchison Kiwanis Club.

PROFESSOR Gordon N. Mackenzie's schedule for October included the University of Chicago conference on issues in curriculum development October 16, and the regional conference of the state curriculum program in Wichita, Kan., October 17 and 18.

In Seattle, October 27 and 28, he met with elementary and secondary principals of Western Washington, and lectured on "Next Steps in Curriculum Improvement." Professor Mackenzie spoke to the state's eastern principals October 30 and 31 in Spokane. Accompanied by Research Associate Rose Lammel, he attended and addressed conferences of the Northwest Association for Supervision and Curriculum Improvement in Seattle and Spokane. From there, Professor Mackenzie went to Portland, Ore., and Boise, Idaho, where the Association also held conferences. These three meetings were called in connection with Association for Supervision and Curriculum Development of the National Education Association.

THE family situation in China was Professor Ernest G. Osborne's topic at a luncheon meeting at the annual conference of the National Council on Family Relations, held November 29.

A talk and an informal discussion on rhythmic play comprised Professor Emma D. Sheehy's presentation before the kindergarten, first and second grade teachers of P.S. 33 in Manhattan November 19.

Miss Ada Stephens of Adelaide, Australia, who is serving on the childhood education staff this semester, spoke on "Education in Australia" to the International Relations Club of Cedarcrest College, Allentown, Pa., on October 26 and also addressed the PTA of Middletown, N. Y., November 18 on "Evaluating the Needs of Today's Children."

SOCIAL SCIENCE

Professors Mary E. Townsend and Erling M. Hunt attended the annual convention of the American Historical Association at the Hotel Cleveland, Cleveland, Ohio, December 27 to 29, where Professor Hunt presided at a joint session of the National Council for the Social Studies and the American Historical Association concerned with the program of UNESCO.

On November 8, Professor Hunt addressed the New Jersey Association of Teachers of Social Studies and the New Jersey Council of Geography Teachers at a meeting in Atlantic City. He was chairman of the session on the future of world history at the St. Louis meeting of the National Council for the Social Studies later in the month and Professor Ryland Crary was also on the program.

During the absence of Professor George T. Renner, who is on a year's leave, Professor Frank E. Williams, retired head of the department of geography at the University of Pennsylvania, is serving as visiting professor of geography.

Professor Crary addressed the Vermont Education Association as well as the Connecticut Education Association during October.

The Henry Johnson Club, inactive during the war years, has been reorganized and will sponsor numerous meetings, including luncheon and dinner sessions, to which former students in the department are welcome as well as those currently enrolled. Henry Johnson, Professor Emeritus of History, attended the first tea held by the group October 23.

Visiting professor of history at Smith College this semester is Professor Emeritus J. Montgomery Gambrill, who has been a member of the faculty at Johns Hopkins University since his retirement from Teachers College.

NATURAL SCIENCES

Professor Gerald S. Craig participated in a workshop of the elementary teachers of Alamance County, N. C., November 17 and 18.

Representatives of 27 teacher training institutions in nine states on the Eastern seaboard met at Teachers College November 14 and 15 at the 21st annual fall conference of those engaged in preparing teachers of science. Speakers at the two-day session included members of the Natural Sciences Department, educators from state teachers colleges, and science specialists from the U. S. Office of Education. The Friday morning meeting was devoted to a consideration of how community resources can be utilized in teacher education. Friday afternoon conferees heard papers on educating teachers for the general science courses offered on the senior high school level. Professor Gordon N. Mackenzie spoke at the dinner meeting at the Men's Faculty Club that evening. Saturday morning the program was centered on the work of the science teacher in the elementary school. Dr. S. Ralph Powers was chairman of the conference, and also spoke on "The Goals of Professional Education for High School Science Teachers."

MUSIC EDUCATION

At the final session November 1 of the eightieth convention of the Maryland State Teachers Association in Baltimore, Professor James Mursell spoke on "The Simplicities of Effective Teaching."

In a recent issue of the *National Music Council Bulletin*, a report by Professor Raymond Burrows on the development of piano classes in the schools is featured.

Professor Burrows delivered a talk at the year-end luncheon of the piano trade of New York at the Hotel Woodstock, New York City, December 30.

On November 14 and 15, Professor Harry R. Wilson conducted a choral clinic for the Georgia State Music Educators Association at Milledgeville, and will return in the spring as critic and guest conductor. He also conducted a festival of 300 students at Atlantic, Iowa, November 21.

Under his direction, the Teachers College Choir performed the Bach motet for double choir, *Sing Ye to the Lord*, over the NBC network Thanksgiving morning.

Under the auspices of the New York Violin Teachers Guild, Professor Ernest E. Harris gave a demonstration-lecture, "Class Instruction in Instrumental Music," in the Wurlitzer Auditorium in New York City, November 13.

The Little Symphony, conducted by Professor Harris, gave a concert in the McMillin Theater December 4, and at Hofstra College, Hempstead, L. I., December 12.

On November 10, Professor Lilla Belle Pitts was on the program of the In-and-About-Pittsburgh Music Educators Club.

HOME ECONOMICS

The Parent-Teachers Association of P.S. 7 heard Professor Orrea F. Pye on "Food in the Present Crisis" November 6.

A group of junior high school teachers in Bergen County, N. J., heard Professor Clara M. Taylor discuss methods, techniques, and materials for teaching nutrition, November 10.

Eighty-six public school teachers visited the new nutrition education workshop and other research laboratories November 12, as part of the program of the alertness credit courses in nutrition sponsored by the Washington Heights-Riverside Nutrition Committee. The laboratories were also visited November 24 by a group of teachers from P.S. 54.

BUSINESS AND VOCATIONAL EDUCATION

The September-October issue of *Dictaphone Educational Forum* contains an article by Professor Hamden L. Forkner entitled, "Developing Employable Qualities."

Professor Forkner, on sabbatical leave, is travelling abroad, and is at present in France and Switzerland.

Professor Thelma Potter served as special editor of the October issue of the *United Business Education Forum.*

A Teachers College luncheon, attended by former business education students, was held in connection with the meeting of the Southern Business Education Association in Knoxville, Tenn., November 28.

HEALTH EDUCATION AND PHYSICAL EDUCATION

One of the participants in the American Camping Association "Leadership Training Workshop" in Oconomowoc, Wis., November 7 and 8 was Professor Clifford L. Brownell.

"Problem Solving in Health, Physical Education and Recreation" was Professor Harry A. Scott's topic November 21 at the Boston meeting of the Massachusetts State Health and Physical Education Association.

An article entitled "What Is Corrective Physical Education Today?" which appears in the December issue of the Phi Delta Pi publication, *The Progressive Physical Educator*, was written by Professor Josephine L. Rathbone.

Teachers of the southeast zone of the New York State Association for Health, Physical Education and Recreation heard Professor Marjorie Hillas on "The Formation of an Officials' Rating Board" in Newburgh, N. Y., October 24.

Professor Hillas has also been appointed to membership on the studies and research committee of the American Camping Association.

Serving as chairman of the membership committee of the College Physical Education Association, and the chairman-elect of the intramural section of the American Association for Health, Physical Education and Recreation is Professor L. Carroll Adams.

Division V

Nursing Education

COLLEGE Chemistry in Nursing Education by Professor Edna C. Morse is the latest addition to the Macmillan Nursing Education Monograph series. Divided into two parts, the book first presents a discussion and evaluation of the current college offerings in general chemistry. Following this, there is a detailed outline of contents for a supplementary chemistry course for students in nursing with special reference to their needs and interests. The book was edited by Professor Emeritus Isabel M. Stewart, who is also the author of the one-page introduction which prefaces the instructional material.

Professor Virginia Henderson spoke at two meetings in October. From the 23rd to the 25th, she participated in a meeting in Washington, held in connection with the Nursing School Study, financed by the Carnegie Foundation and sponsored by several national nursing organizations. The annual convention of the West Virginia State Nurses' Association in Huntington claimed her attention October 31, as she spoke on the topic, "Expanding and Enriching the Curriculum of the School of Nursing."

Office of Field Relations and Placement*

The following list continues the appointments of the Teachers College Alumni reported in the December Record.

Slay, Ronald James (Ph.D. 1928), head of physics department, Wagner Memorial Lutheran College, Staten Island, N. Y.

Slonecker, Lyle N., director of placement and teacher training, Colorado Agricultural and Mechanical College, Fort Collins, Colo.

Smith, Ann Avery, director of students, New Jersey College for Women, New Brunswick, N. J.

Smith, David M. (A.M. 1947), teacher of instrumental music, High School, Flushing, Mich.

Smith, Dorothy M., assistant to dean, Duke University School of Nursing, Durham, N. C.

Smith, Harley B., counselor, Long Beach City College, Long Beach, Calif.

Smith, Levi L. (A.M. 1947), teacher of social studies, High School, Hudson, N. Y.

Smith, Orcenith S. (A.M. 1947), chairman of fine arts division, Southwestern College, Winfield, Kan.

Smith, Reata (A.M. 1945), teacher of arts and crafts, Lakeview Home, Staten Island, N. Y.

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* Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Field Relations and Placement. For initial registrations covering three years, no fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Sniadack, Frank S. (B.S. 1947), instructor in physical education, Military Academy, Oakland, N. J.

Snyder, Raymond A., assistant professor in health and physical education, Washington University, St. Louis, Mo.

Sorensen, Marie (A.M. 1947), research work in housing, Utah State Agricultural College, Logan, Utah.

Spaeth, Grace (A.M. 1937), attendance counselor, Public Schools, San Bernardino, Calif.

Stadelmann, Dorothea R. (A.M. 1942), teacher of English, Standard Oil School, Aruba, Dutch West Indies.

Stark, Everett L., teacher of social studies and coach, Junior High School, North Attleboro, Mass.

Stevens, Clayton P. (A.M. 1929), supervisor of music, Consolidated Schools, Bridgewater, Brookfield, Morris, New Preston and Washington, Conn.

Stickler, W. Hugh (Ed.D. 1941), chairman of general education, Florida State University, Tallahassee, Fla.

Strickland, Marian (A.M. 1947), third and fourth grade critic teacher, State Teachers College, Oswego, N. Y.

Swanson, Herbert G., teacher of Latin, social studies and guidance, Public Schools, Oyster Bay, N. Y.

Tanaka, Masako (M.S. 1947), nutritionist, Judson Health Center, New York, N. Y.

Taylor, Willye (A.M. 1946), teacher of fifth grade, Public School, Sebring, Fla.

Teitsworth, Dorothy (B.S. 1947), teacher of dramatic arts, The Bishop School, La Jolla, Calif.

Thatcher, George E., teacher of mathematics, High School, Cranford, N. J.

Thatcher, Harold W., head of history dedepartment, Wilkes College, Wilkes-Barre, Pa.

Treacy, John J. (A.M. 1947), teacher of English and education, Manhattan College, New York, N. Y.

Truex, Dorothy, counselor of women, University of Oklahoma, Norman, Okla.

Turner, Marguerite M. (B.S. 1941), teacher of fifth grade, Public Schools, Hawthorne, Calif.

Varhely, Henry A., director of athletics, Utica College of Syracuse University, Utica, N. Y.

Walling, W. Donald (A.M. 1940), associate education supervisor, New York State Education Department, Albany, N. Y.

Walton, Mary Elizabeth (A.M. 1939), consultant dietitian, Child Caring Institutions of Catholic Charities, New York, N. Y.

Welling, John S. (A.M. 1929), professor of social science, Colorado State College of Education, Greeley, Colo.

Westfall, Leon H. (Ph.D. 1934), supervising principal, Public School, Locust Valley, N. Y.

White, Dorothy E. (A.M. 1947), teacher of home economics, Barber-Scotia College, Concord, N. C.

Whitehurst, Nellie May (A.M. 1946), resident counselor for women, University of Miami, Coral Gables, Fla.

Wilsing, Weston C., instructor in economics and secretarial science, Yakima Valley Public Junior College, Yakima, Wash.

Winkler, Vera L., teacher of modern languages, High School, Baldwin, N. Y.

Wladaver, Donald (A.M. 1947), teacher of French and history, Barnard School for Boys, Bronx, N. Y.

Wyle, Violet B., kindergarten teacher, Carolyn Freeman's School, Flushing, N. Y.

The following recent appointments of Teachers College Alumni are reported by the Office of Field Relations and Placement:

Adler, Rita M. (A.M. 1947), teacher of commercial education, Adelphi Business School, Brooklyn, N. Y.

Ahlberg, Edith W. (A.M. 1944), dean of women, State Teachers College, Eau Claire, Wis.

Alkalay, Judith (A.M. 1936), lecturer in hygiene, Queens College of the City of New York, Flushing, N. Y.

Allenza, Joseph B. (A.M. 1947), teacher of seventh grade, South Huntington High School, Huntington Station, N. Y.

Ambrose, Philip S., teacher of social studies, High School, Malverne, N. Y.

Anderson, Lee B. (A.M. 1947), teacher of fine arts, Horace Mann-Lincoln School, Teachers College, Columbia University, New York, N. Y.

Anderson, Lewis L. (A.M. 1947), director of instrumental music, East High School, Youngstown, Ohio.

Andresen, Charles J. (A.M. 1947), instructor in instrumental music, Lakewood Junior High School, Long Beach, Calif.

Andrews, Ruth Elizabeth (A.M. 1947), instructor in physical education, Ball State Teachers College, Muncie, Ind.

Anning, Margaret E. (A.M. 1947), teacher of music, Oak Ridge High School, Oak Ridge, Tenn.

Arndt, Ruth Eleanore (A.M. 1947), teacher of home economics, Junior-Senior High School, Dobbs Ferry, N. Y.

Arnold, Willard B., teacher of journalism, Oklahoma City University, Oklahoma City, Okla.

Arthur, Edwin Foster (A.M. 1947), instructor in physics and physical science, New York State College for Teachers, Buffalo, N. Y.

Ashcraft, James W. (A.M. 1938), director of physical education, Hammond Central School, Hammond, N. Y.

Asmus, Ralph C. (A.M. 1941), instructor in business education, Phoenix Junior College, Phoenix, Ariz.

Aspray, Grace Ann (A.M. 1946), assistant professor of clothing, University of Connecticut, Storrs, Conn.

Athearn, Clarence R., professor of philosophy and education, Williamsport Dickinson Seminary and Junior College, Williamsport, Pa.

Aufhauser, Trude R., clinical instructor and supervisor of pediatric nursing, School of Nursing, Johns Hopkins Hospital, Baltimore. Md.

Aukerman, R. Russell, teacher of instrumental music, Public Schools, Springerville, Ariz.

Austin, Sarah (A.M. 1947), teacher of mathematics, Reynolds High School, Winston-Salem, N. C.

Avery, Martha Martin (A.M. 1947), instructor in home economics, Georgia State College, Industrial College, Ga.

Bacon, Mary Jane (M.S. 1947), instructor in home economics, Rhode Island State College, Kingston, R. I.

Badgley, William H., Jr. (A.M. 1947), instructor in mathematics, State Teachers College, Florence, Ala.

Baer, Jean Hitchcock (A.M. 1947), counselor, Stephens College, Columbia, Mo.

Bain, Florence (A.M. 1932), instructor in physical education, Berea College, Berea, Ky.

Baker, Evelyn C. (A.M. 1947), director of social activities, School of Nursing, Hurley Hospital, Flint, Mich.

Barfield, Margaret Ellen (A.M. 1947), field adviser, Girl Scout Council of Greater New York, New York, N. Y.

Barnum, Faith (A.M. 1947), assistant professor of nursing, John Sealy Hospital, Galveston, Tex., and student counselor, University of Texas, Galveston, Tex.

Baron, Rita (A.M. 1947), teacher of speech, Public Schools, New York, N. Y.

Barrow, Loyd M. (A.M. 1946), instructor in physical education, Texas College of Arts and Industries, Kingsville, Tex.

Bartz, Eleanor (A.M. 1947), teacher of English, High School, Bound Brook, N. J.

Bassett, Francis J. (A.M. 1947), instructor in social studies, State Teachers College, New Paltz, N. Y.

Beaty, Harper Fulton (A.M. 1947), instructor in education, New York State College for Teachers, Albany, N. Y.

Beck, Esther L. (A.M. 1941), instructor in business administration, Arkansas State College, State College, Ark.

Bedford, Fred L. (Ed.D. 1940), head of mathematics department, Phoenix Junior College, Phoenix, Ariz.

Bellinger, Lois (Ed.D. 1943), associate in guidance, Teachers College, Columbia University, New York, N. Y.

Bendt, Virginia I. (A.M. 1945), teacher of English, High School, Westfield, N. J.

Benjamin, Benjamin (A.M. 1947), teacher of science, Fallsburgh Central School, Woodridge, N. Y.

Bennett, Nellie K. (A.M. 1947), supervisor of elementary instruction, Public Schools, Colusa County, Calif.

Berger, Dorothea, teacher of French and Latin, High School, Pawling, N. Y.

Berger, Owen L. (A.M. 1947), assistant professor of music, Western Michigan College of Education, Kalamazoo, Mich.

Bernard, James A., teacher of English and social studies, Bellows High School, Mamaroneck, N. Y.

Biddle, William W. (Ph.D. 1932), director of community studies, Earlham (Ind.) College.

Blanken, Maurice, instructor in history, Storm King School, Cornwall, N. Y.

Block, Murray H. (A.M. 1947), instructor in accounting, New York State Institute of Applied Arts and Sciences, Brooklyn, N. Y.

Bloomer, Miriam D. (A.M. 1945), teacher of home economics, High School, Babylon, N. Y.

Bloss, M. Esther, assistant professor of sociology, Adelphi College, Garden City, N. Y.

Bock, Florence L. (A.M. 1946), instructor in physical education, Miss Hewitt's Classes, New York, N. Y.

Bockstedt, Adele D. (A.M. 1941), head of French department, Oldfields School, Glencoe, Md.

Brereton, John Daniel (A.M. 1947), teacher of mathematics, New Paltz Central High School, New Paltz, N. Y.

Britt, Georgia Rose (A.M. 1947), kindergarten teacher, Elmwood Avenue School, East Orange, N. J.

Brown, Kristine K. (A.M. 1942), instructor in mathematics, Northwestern State College, Alva, Okla.

Brown, Ralph Adams, professor of social studies, State Teachers College, Cortland, N. Y.

Browne, Arthur D., assistant professor of psychology, University of Denver, Denver, Colo.

Browne, Leila Kendall (A.M. 1946), kindergarten teacher, Manhasset Bay School, Port Washington, N. Y.

Bryan, Gertrude E. (A.M. 1947), director of student union, Southwest Texas State Teachers College, San Marcos, Tex.

Buck, Madeline (A.M. 1947), teacher of music, Beall High School, Frostburg, Md.

Buehlman, Gladys (A.M. 1943), instructor in typing, Woodbury College, Los Angeles, Calif.

Burnett, R. Will (Ph.D. 1940), professor of education, University of Illinois, Urbana, Ill.

Burrows, Sara S., teacher of art, The Shipley School, Bryn Mawr, Pa.

Byrd, D. Winifred (A.M. 1947), teacher of home economics and science, Lincoln High School, Rockville, Md.

Caron, Mary R. (A.M. 1936), associate director, School of Nursing, University of Georgia, Augusta, Ga.

Carter, Hattie P. (A.M. 1933), instructor in home economics, Tuskegee Institute, Tuskegee Institute, Ala.

Case, Frances E. (A.M. 1942), director of guidance, Technical High School, Atlantic City, N. J.

Cheesman, Frank Telfer, instructor in music, State Teachers College, West Chester, Pa.

Chous, Charles Nicholas (A.M. 1947), instructor in English, Queens College of the City of New York, Flushing, N. Y.

Clark, Ruth Mari (A.M. 1939), head of art department, Senior High School, Long Branch, N. J.

Clay, Mary (A.M. 1925), head of home economics department, Morehead State Teachers College, Morehead, Ky.

Clayton, Alfred Stafford (Ph.D. 1942), assistant professor of education, Indiana University, Bloomington, Ind.

Clemm, John (A.M. 1945), teacher of social studies, Bentley High School, New York, N. Y.

Cleveland, Ray William (A.M. 1947), director of music, High School, Rahway, N. J.

Clifton, G. Eleanor (A.M. 1944), director of admissions, Goucher College, Baltimore, Md.

Clisby, Charles E., principal, Miquon School, Miquon, Pa.

Cohen, Irving (A.M. 1947), teacher of social studies, English and mathematics, Hawthorne Cedar Knolls School, Hawthorne, N. Y.

Cokeley, Addie May (A.M. 1929), associate professor of foods and nutrition, Western College, Oxford, Ohio.

Comer, John T., Jr. (A.M. 1947), supervisor of pupil personnel, Public Schools, Dorchester County, Cambridge, Md.

Commoss, Harriet H. (B.S. 1946), kindergarten teacher, Public Schools, Keene, N. H.

Condee, Luella Frances (A.M. 1947), teacher of music, Public Schools, Malverne, N. Y.

Cook, Claude K. (A.M. 1947), professor of music, Wake Forest College, N. C.

Cook, Elizabeth C., Marie Gifford field representative, Armour and Company, New York, N. Y.

Cooper, Paul J. (A.M. 1946), teacher of French, Sullins College, Bristol, Va.

Cope, Carl Guthrie (A.M. 1947), assistant principal, High School, Union Springs, Ala.

[Continued in February *Record*.]

Alumni Activities

Two former assistants at Teachers College have recently moved to important positions in the field of adult education. **Andrew Hendrickson** (Ph.D. 1943) has become professor of adult education at Ohio State University, Columbus, while **William J. Pitt** (Ed.D. 1942) is assistant professor in the counseling department under the dean at Brooklyn College.

Food Expert for the *New York Sun* for 20 years, **Edith M. Barber** (M.S. 1925) was one of four women food editors receiving awards October 29 for outstanding achievement in the presentation of news about food. The awards, sponsored by the American Meat Institute, were made at the annual newspaper food editors' conference in New Orleans. Miss Barber has taught summer courses on public relations for home economists at Teachers College, is the author of several books and an extensive contributor to magazines.

As assistant professor of education in the School of Education at Indiana University, Bloomington, beginning this fall, **Paul W. Seagers** (A.M. 1932) is teaching school building planning, engaging in State surveys, and acting as a school building consultant to Indiana school districts.

Formerly on the faculty of Trenton and Glassboro (N. J.) Teachers Colleges, **Grace Wilson** (B.S. 1929) has been named instructor in elementary education and social studies at Keene, N. H., Teachers College. She will also conduct extension work.

Robert B. Cheney (A.M. 1942), assistant co-ordinator of personnel for the Oklahoma City school board, has been appointed committee chairman for the Junior Red Cross of the Oklahoma County Red Cross chapter.

Editor of the seventeenth yearbook of the National Council for the Social Studies, *The Study and Teaching of American History,* is **Richard E. Thursfield** (Ph.D. 1945). Dr. Thursfield recently left the Johns Hopkins University faculty to become head of the department of education at the University of Rochester in Rochester, N. Y.

The Williams-Waterman Foundation has granted **Ruth Harrell** (Ph.D. 1942) a substantial fund for a five-year investigation of the effect of vitamins on the physiological and psychological condition of pregnant women and on their offspring. The subjects of the experiment will be approximately 2,000 women in Virginia and West Virginia and their children to the age of three. Former associate in research in the Teachers College Institute of Psychological Research, **Ella Woodyard** (Ph.D. 1926) is also devoting full time to this investigation, the funds of which are administered through Teachers College. Professor Arthur I. Gates is general adviser to the study.

Associate professor of education at Illinois State Normal University, Normal, Ill., **Stella Van Petten Henderson** (Ed.D. 1937) is the author of *An Introduction to Philosophy of Education*, published by the University of Chicago Press in November. The book is based on the manuscript Dr. Henderson has used in her classes for five years.

Helen Huntington Smith, former graduate student, has just returned home on furlough from her work as Congregational teacher in Foochow, China, under the American Board of Foreign Missions. During her last period of service, Miss Smith was stationed at the Pierce School for Girls in Foochow. In 1941, when the school made its second flight to safety from Japanese invaders, Miss Smith shepherded 110 Chinese girls over country and mountain trails to safety.

Administrative affairs secretary of the Eastern and Central regions, YWCA, **Evangeline F. Wilcox** (A.M. 1934) met with several "Y" groups in Saginaw, Mich., in November. Miss Wilcox, former dean of women at Shurtleff College, Alton, Ill., has been with the "Y" since 1937.

For the second time, **Amelia Walden** (B.S. 1933) has written a novel which has been accepted by one of the national Junior Book Clubs. Her new book, *Waverly*, is designed for a teen-age audience, as was her first, *Gateway*. Mrs. John William Harmon in private life, Miss Walden is a former school teacher who turned to writing novels which do not "talk down" to young people.

Given a leave of absence during the war, **Albert Brayson**, former graduate student, has returned as principal of Lake Grove School, St. James, N. Y. For four years, Mr. Brayson served with the U. S. Navy.

Norbert Noyes, former graduate student, has been named music instructor at Garland Street Junior High School, Bangor, Me.

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TEACHERS COLLEGE
RECORD

Science and General Education

SAMUEL RALPH POWERS

PROFESSOR OF NATURAL SCIENCES, TEACHERS COLLEGE

The scope of the natural sciences is inclusive of the world and man. The method of study is analysis supplemented by description and interpretation. Using many observational techniques the natural scientist gleans a body of ideas about phenomena which he may then piece together to make up a description. In the process new questions are raised and theories are constructed to guide in further study which, in turn, yields further ideas for a fuller description. The description has the characteristics of both consistency and coherency. It is consistent in that it is made free from internal contradictions and it is coherent in that consistent ideas from many sources and from the work of many investigators may be understandably associated into an increasingly comprehensive interpretation of the nature of the world and of man.

Scientific research has been extremely rewarding, for through their studies scientists have learned the answers to many important questions. They have, for example, learned the causative agents of most of the common diseases and have described and applied measures for control. As a result, millions of men and women are alive today who would have been dead if the death rate of 1900 from typhoid fever, scarlet fever, whooping cough, diphtheria, and diarrhea had continued as of that date. Further spectacular results from scientific research include increase in production and improvement in quality of foods; refinements in the processes of separating metals from low-grade ores; increased efficiency in production and distribution of power from fuel and falling water; fuller understanding of cultural and biological differences and similarities among people; and convincing answers to questions about the nature of the world and the universe.

There is no dearth of support for the opinion that scientific answers to questions about the nature of the world and man are important. This support is well summed up in a report[1] to the President of the United States urging federal aid for scientific research:

> Interest in the question of federal aid to research reflects widespread recognition by the American people that the security of a modern nation depends in a vital way upon scientific research and technological progress. It is equally clear that public health, higher standards of living, conservation of national resources, new manufacturing which creates new jobs and investment opportunities—in short, the prosperity, well-being, and progress of the American nation—all require the continued flow of new scientific knowledge. Even if a nation's manpower declines in relative numbers, even if its geographical frontiers become fixed, there always remains one inexhaustible national resource—creative scientific research.

In a more recent report[2] to the President it is urged: "That, as a nation, we increase our annual expenditure for research and development as rapidly as we can expand facilities and increase trained manpower."

It is not sufficient to recognize these vast achievements. As educators and teachers we are concerned with the usefulness of knowledge, and with the methods of gaining knowledge, in building a way of life that is increasingly a realization of the ways of democracy. It must be recognized that in the history of society, science as a dominating influence on personal and social behavior is new. In earlier cultures, opinion and authoritative pronouncements from a ruler or leader dominated in large measure the behavior of people and at the same time determined value codes and the form of government. In its origins, science was carried on with but little regard for its possible bearings on personal and political issues. The ways of democracy, however, are based upon understanding, and science has now become an extremely important means to their fuller realization.

SCIENCE IN THE TOTAL CULTURE

We are concerned at present with the question of how understandings achieved through the researches of natural scientists, and social scientists as well, may become increasingly parts of a total culture to be used by the people for a fuller realization of the ways of democracy.

In our analysis of elements within the total culture we recognize: (1) man and the universe, which is in general the domain of the natural sciences; (2) human society, which is in general the domain of the social sciences; and (3) man's thoughts about the world and about himself and his society, which in general take the form of conceptions and principles with implications of their practical applications to the realization of values. This is the domain of philosophy. Obviously all of these are in the same world of discourse, for in the process of thinking none of them exists alone.

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[1] Vannevar Bush, *Science, The Endless Frontier* (Washington, D. C.: United States Government Printing Office), p. 68.

[2] The President's Committee on Scientific Research (John R. Steelman, chairman), *Science and Public Policy, A Program for the Nation* (Washington, D. C.: United States Government Printing Office), August 27, 1947, p. 6.

The methods of the social scientist working in his domain are similar to those of the natural scientist. Using observational techniques in great variety he gleans a body of ideas about society which may be pieced together to constitute a description. In the process new questions are raised and theories are set up to guide further study. As the social scientist refines his techniques his descriptions become increasingly precise. He can describe with precision changes in population, the loyalties of the people, the economic system, methods of public participation in government, causes of conflict among groups, and other practical matters in great variety and scope.

Problems arise from conceptions of value. Health is a value and many problems arise from the question, How may it be achieved for all? Each of the Four Freedoms is a value, and again many problems arise from consideration of how these values may be more fully realized.

Some practical conclusions offered as answers to questions about society, the world, and man may now be examined. The Secretary of the Interior has released a report[3] in which he supports the conclusion that "our economy in general is physically capable of providing the resource requirements for a considerable program of foreign aid." He states that depleted soils can be restored and a high level of agricultural productivity maintained; that the rate of technological production will continue to increase at about the same annual rate as before the war. The ideas which support the conclusions of this report are concerned with soil, ores, fuel and power resources, manpower, the stability of the American economy, and other factors—ideas which, in turn, have been derived from studies carried on by natural scientists and by social scientists.

The President's Committee on Civil Rights[4] recognizes in its reports four basic rights: (1) to safety and security of the person, (2) to citizenship and its privileges, (3) to freedom of conscience and expression, and (4) to equality of opportunity. The committee reached the conclusion "that each of these rights is essential to the well-being of the individual and to the progress of society." This conclusion is supported by studies of population, of similarities and differences among people, of abuse of principles to which we as a nation are committed, and many others. It was submitted to the President as a practical answer to questions arising from the search for higher values in the area of civil rights than are now being realized.

The cultural heritage of a people carries in it workable conclusions about many things, including conservation, dignity of man and the family, charity, morality, honesty, personality, and death and disease. It is out of these conclusions that patterns of individual and group behavior evolve. In general, we accept the ones which guide action in ways that are consistent with the welfare of the people concerned with or affected by the action. We tend to reject those which cause conflict. For example, we in the United States accept democracy; we reject Naziism.

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[3] J. A. Krug, "National Resources and Foreign Aid" (Washington, D. C.: Department of the Interior, October, 1947). (Mimeographed)

[4] The President's Committee on Civil Rights, *To Secure These Rights* (New York: Simon and Schuster, 1947).

The principles and practices that characterize democracy, communism, Moslemism, and Christianity are value judgments of different cultural groups derived from their conclusions about man and the world and about society, and include conclusions of the past as part of the cultural heritage. At one time these principles and practices were thought of as heritages of different and distinct groups. The One World concept incorporates all these, and it is observable that today many value conclusions drawn by the people of one culture are in conflict with those drawn by the people of another culture. It may be expected that the different peoples of the world will learn to work together as each seeks out and rejects or modifies the conclusions and the actions that are the causes of the conflicts. All of these—the facts and theories about society, about world and man, and the working conclusions about values—are parts of the same universe of thought and are the concern of everyone.

The method of the natural scientist is but one of the ways of giving consideration to problems that stem from this world-wide concern. In his dealings with these problems the natural scientist must be at the same time sociologist and philosopher, all the while cooperating with those whose specialization lies within these other areas of study. In this discussion it seems more fruitful to consider the total contribution from all areas of thought rather than the limitations of any one, for in the thinking process the boundaries between them are by no means distinct. At best it can only be said that one merges into the other and that each represents an approach to issues and problems.

This point requires some emphasis, for in common parlance this relationship is sometimes denied. As an illustration, it has been stated that science can offer nothing to the definition of standards of moral conduct. The fact remains, however, that ideas gleaned from scientific study have had and are having widespread application in reaching conclusions about what is evil. Scientific ideas about growth and development and about nutrition of children have led to extensive revision of our conclusion about what is right and what is wrong in our treatment of children. Similarly, scientific ideas about differences among people have led to revision of our conclusions about what is right and what is wrong in dealings between and among cultural groups. Ideals, morals, and standards are generalized values derived from man's efforts to establish security for himself and his society. It seems not unreasonable to suggest that all inherited moral codes should be scrutinized in the light of scientific findings.

In this universe of thought the scientific method finds application as a practical means of estimating the validity of ideas, concepts, and conclusions. The practical test is through the senses. Concepts gained through sensory experience may be judged valid if conclusions drawn from them are in agreement or are meaningfully related. As illustration, the concept of gravity is meaningfully related to the concept of mass and of acceleration. Conclusions that are drawn from careful consideration of these concepts are consistent in that no one contradicts another. In a second illustration some conclusions about innate behavior drawn from ideas about race are recognized as not valid because they are contradicted by other conclusions judged to be of equal or higher validity. There are at hand many conclusions about soil composition that are consistent with those about agricultural production. Conclusions about the genetic character of an individual are consistent with those about the genetic character of his offspring. Conclusions about the quality of foods consumed are in agreement with those about the physical vigor of individuals.

The scientific method finds application as men learn to recognize and to use ideas and concepts about man and the world and about society that lead to consistent conclusions. This aspect of scientific method, being comparative, will not resolve all difficulties. But the small fraction of understanding achieved through its application has profoundly changed the world.

Other areas of intellectual effort are parts of this whole consideration of man and his world, social organization, and values. The communication arts, especially language, are used to convey meanings. Mathematics is a tool useful in refining ideas and conclusions derived from sensory experience. The arts are applied in painting, sculpture, and music to communicate feeling. All of these derive their substance from a whole pattern of thought.

SCIENCE IN THE SCHOOL CURRICULUM

In their experiences within the school young people should have opportunity as they consider courses of action to take account of the relatedness among ideas about the world and man, about social organization, and about values. They should have opportunity to practice communicating their thoughts and feelings. The curriculum for young people should be as broad as life and arranged so that they may be helped to bring into comprehensive, meaningful relation the many experiences encountered by them. A practical question that arises at this time is: How can we work effectively toward the goal of offering this opportunity to young people in the framework of the present school organization and with its sequence of special subjects?

It seems reasonable to conclude that the first essential to the imparting of good education is that teachers shall have it. This leads at once to an adverse criticism of much that is done in teacher education, particularly in the education of the teachers who are to work on the high school level. The emphasis is almost exclusively on specialization in subjects, and although this is an essential feature it represents only a part of the total competence the teacher should possess. There is too little emphasis on broad understanding and too little opportunity for teachers of science to cooperate with other teachers in developing a balanced experience; and there is too little opportunity to study the needs, interests, and competence of developing youth. The usual specialization in subjects is but little related to the needs of youth (except to a few in a narrow vocational sense) and contributes but little to understanding and to ability to deal with the issues and problems that arise today.

Another obstacle to the accomplishment of a whole program of education may be seen in the administrative plan of the high school and in the school building in which the plan is operated. The small classrooms, the uniform periods, and the concern for awarding credits to young people who have complied with standard requirements are heritages from the Committee (of Ten) on Secondary School Subjects, the Committee on College Entrance Requirements, and other standardizing agencies. The policies supporting these requirements were derived from assumptions which, when applied in the public high school of today, are no longer valid. In practice these standard requirements are hindrances rather than aids when the goal of education is growth in personality and in general competence to work as a citizen for public welfare.

TEACHING A SPECIAL SUBJECT

The thoughtful teacher entering upon his work will raise the practical question: What can I do in the school situation as it is? It will be agreed that the answer depends upon the kind of competence the teacher brings to the situation as well as upon what he finds there. The teacher of chemistry, for example, who has given thoughtful consideration to the problems of young people at the age level of his classes and to the impact of chemistry on life of today will be able to help his students gain useful education. Chemists working in their areas of specialization have contributed greatly to "new frontiers of the mind" and at the same time to new frontiers for enterprise. Problems appropriate for young people in chemistry classes arise from questions about sanitation and health standards; fuel supply and the prospects for abundance; cartels in action in the regulation of production of rubber, nitrogen compounds, aluminum, magnesium, and chemicals of many kinds; and the soil and the abundant production of food supplies.

Young people are concerned about such questions, and education may serve to increase their concern. They see, and can be helped to see even more clearly, the relations of these problems to their own present and future welfare. The problems and questions stemming from study of these matters establish the criteria for the selection of subject matter and teaching materials, and learning is advanced, guided by definite purposes. In such learning it is acknowledged that traditional boundaries of chemistry will, if rigidly recognized, become barriers to the complete consideration of these closely related problems. Some questions about sanitation are essentially in chemistry; others are in biology. Similarly, some questions about fuels are within the scope of chemistry; others are within the scope of the usual physics course. Doubtless there are some that fall within neither. The chemistry teacher will not be limited too rigorously by these boundaries which from the experience angle will seem artificial.

The foregoing suggestions regarding how to realize goals of general education, when the opportunities for experiences are limited to an arrangement of special subjects, are in agreement with suggestions on chemistry teaching in the recent report[5] of the Science Committee of the National Society for the Study of Education.

A clear description of chemistry teaching for realization of general education values has been provided by Everote.[6] Preparation for his study included organization of units based upon problems inherent in the everyday life of youth in Los Angeles. Carefully controlled records show that students in an experimental course raised the level of their achievement not only in chemistry but in other courses as well and that, on the basis of surveys of literature and firsthand observations carried on as part of their studies, the students revised their opinions toward agreement with tenets underlying large-scale planned agricultural production and gained willingness to cooperate with other citizens and technologists in dealing with problems of agricultural production in southern California.

BROAD SCIENCE COURSES

The development of broader science courses than physics or chemistry is a move toward a more favorable situation for dealing with comprehensive problems. The teacher entering upon his work in general physical science or in general biological science recognizes the broader scope of his assignment and is challenged to deal with problems in a setting as broad as the one in which they are identified.

The broad course in general biology is well established and that in physical science is gaining recognition. It is endorsed not only by curriculum workers and high school teachers of science,[7] but also by the Harvard Committee[8] and by the Cooperative Committee on Science and Mathematics Teaching[9] of the American Association for the Advancement of Science. Brown's[10] work in the Lincoln School of Teachers College has been a significant contribution to this development. Experimentation with development in science teaching has been carried on for a number of years in the Teachers College Bureau of Educational Research in Science. A report of this work is to be published elsewhere.[11]

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[5] National Society for the Study of Education, "*Science Education in American Schools,*" *Forty-sixth Yearbook*, Part I (Chicago: The University of Chicago Press, 1947).

[6] Warren Everote, *Agricultural Science to Serve Youth*. New York: Bureau of Publications, Teachers College, Columbia University, Contributions to Education, No. 901.

[7] National Society for the Study of Education, *op. cit.*, p. 190-99.

[8] *General Education in a Free Society*. Harvard University Press, 1945.

[9] The President's Scientific Research Board, "Manpower for Research." Vol. 4, *Science and Public Policy*, October, 1947, p. 93.

[10] H. Emmett Brown, *The Development of a Course in the Physical Sciences for the Senior High School of the Lincoln School of Teachers College*. New York: Bureau of Publications, Teachers College, Columbia University, 1939.

THE GOAL OF SCIENCE TEACHING

The goal of science teaching in general education is to help young people to make science as much a part of their lives as it is of the society in which they grow up, work, raise their families, and play their parts as citizens. In working toward this goal, teachers and curriculum workers will wish to know the major contribution that studies in science have made and are making to personal and social education and something of the competencies in science which teachers should attain as part of their preparation for work with young people. Some of the contributions may be summarized under the following major headings:

1. Understanding of the world and man and competence to use this understanding to correct the inconsistencies and naive notions that become obvious in the thinking of young people as they mature, and to use these understandings in their reflections about values. In general these understandings relate to structure, organization, and change in the universe and in living things. They will include concepts of time, space, force, matter, energy, life, growth, and development. As already implied in this article, ideas and concepts about the nature of the world and man are basic in all consideration of values.

2. Understanding of the processes and the potentialities of technology and competence to use this understanding in directing the utilization of resources.

3. Competence in using the elements of scientific method that have general application in dealing with personal and social problems. This implies ability to recognize that problems arise out of the search for values and the search for ways to achieve them. It implies ability to recognize consistency in ideas and concepts about man and the world and society and ability to draw consistent conclusions, that is conclusions that are relatively free from contradictions.

4. Comprehension of the effects of infiltration of ideas and concepts, scientific in their origins, upon man's conceptions of good and bad. It may be noted as an illustration that the concept of freedom from want carries a different meaning when associated with modern scientific ideas of processes to increase production from the one it carried before these processes were known. It may be noted, too, that the concept of civil rights carries a different meaning when associated with modern scientific ideas about genetic and cultural differences among people from the one it carried before these things were found out. It is as a result of changing the mean-

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[11] Anita D. Laton and Samuel Ralph Powers, *New Directions in Science Teaching*. New York: McGraw Hill Publishing Co. In press.

ings associated with basic conception that science is indeed remaking the world.

The trend toward the development of broad integrated experiences allows recognition and study of problems in the setting in which they occur. The challenge of general education is that teachers shall be more concerned with education to improve living and that they shall be concerned with critical social issues and with the personal problems of children and youth, such as those related to personality, growth and development, and ways of looking at life. They will deal with large learning enterprises that take account of experience from many sources and with problems as they occur in life. There will be closer articulation of the experiences to favor continuous study in the areas of large enterprises. The preparatory idea, in the sense of preparing youth for some remote situation which they do not themselves identify will be rejected.

The Development of Science in Elementary Schools

GERALD S. CRAIG

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SCIENCE in the elementary school as it is now conceived by workers in the public schools is a development of the past two decades. As a newcomer with little or no established tradition and subject to extensive experimentation with children, science has been readily adaptable to the evolutionary changes in the elementary school. Today we find it accepted by administrators and teachers as an essential resource in the all-round education of children. But perhaps it would be worth while to reassess its place in the emerging curriculum—to consider anew what purposes it should serve; what contribution it should make to the growth of boys and girls in the elementary school; what competency teachers must have in order to use it.

EDUCATION FOR SOCIAL RESPONSIBILITY

Scientific inventions and discoveries have not brought with them the full contribution of science to the thinking of the majority of the people. Widespread unscientific thinking can readily be discerned today in our Western culture, although the Industrial Revolution started more than a century ago. There are indications that in the midst of present-day civilization new superstitions and other unfounded opinions are being created and accepted. Ancient astrology remains a big business. A gullible public accepts high pressure propaganda; in fact, the act of questioning propaganda has been considered a subversive activity in our modern life. The production and use of scientific inventions and discoveries in a culture in which scientific thinking is more or less alien to the membership of that culture can result in an unstable society.

A fundamental consideration in the elementary school must be the preparation of oncoming generations for social responsibility. The children now in our elementary schools will undoubtedly grow up in precarious times. Theirs will be a world of great decisions. They must decide whether science shall be used for good or for evil. They must determine whether new sources of energy are to be used for peace or for war. Theirs will be problems of wise utilization of natural resources, the distribution of new synthetics, medicines, and drugs, provisions for health and well being, establishment and maintenance of research agencies dedicated to public welfare, the establishment of a balance of nature that will provide ample food and recreation for all, the intelligent use of natural forces, and the creation of stable economy based on the natural resources and the resourcefulness of people. As potential citizens, children can live in a period of widespread happiness or one of colossal disaster, depending to no small extent upon the way science is used.

Problems cannot be solved for society through the work of experts alone. The scientists have their functions to perform, but citizens will either assist or retard the application of science to society's problems through their votes and behavior. In a democracy, all citizens have a responsibility in determining how science shall be utilized. This responsibility calls for a childhood education that is designed to develop resourcefulness and intelligent social behavior. Instruction in science can make a unique contribution to these objectives.

The task of science instruction in childhood education is a much larger one than discovering children of exceptional ability in science and starting them on their way to become scientists. In a democratic form of government, public education must involve consideration of the potential contributions of science to all people. Therefore elementary science is designed for all the children.[1]

ELEMENTARY SCIENCE AND DEVELOPMENT OF CHILDREN

There has been a widespread tendency to recognize the adjustment of children to the environment as an important aspect of child growth and development. Elementary science can contribute to this growth by assisting children to secure the interpretations of the environment that are in keeping with the best knowledge man has. As everyone knows, children have a natural curiosity about what is going on in their natural environment. Children are making interpretations of their environment, whether or not they are studying science. These interpretations can lead them into fear, prejudice, dogmatism, and suspicion, or, on the other hand, into becoming individuals who see their environment as something that can be studied and utilized beneficially for themselves and mankind. The explanations they understand and accept as children have much to do with the kind of adults they will be. Emphasis upon the education of children for social responsibility is not in conflict with their natural drives. Children are in the process of growth toward science values if they respond to the challenges and problems with which their environments are filled. There is no dichotomy in the content and procedures in science instruction, in education for social responsibility and life enrichment.

The normal drives of children are much more in line with study of science than is usually recognized by adults. One has only to observe children for a few minutes to see that this is true. The child is in continual interaction with his environment. He displays evidences of imagination, curiosity, and manipulation. In addition, there are the senses of smell, taste, touch, sight, hearing, and the kinesthetic senses which are used by the children in developing orientation to the environment. There is much evidence of energy, conflict, restlessness, play, response to external conditions, and irritability. All of these drives can be utilized creatively by the understanding teacher of science.

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[1] National Society for the Study of Education, "Science Education in American Schools," *Forty-Sixth Yearbook*, Part I, p. 61. 1947. Distributed by the University of Chicago Press.

The adult must recognize that in these experiences he sees children in their early reactions and adjustments to the aspects of their environment. Learning about the environment may be taking place even though the child is unable to state meanings in words. In planning education of children, the administrator and the teacher should conceive of science as beginning at the preschool level.

There should be recognition of the fact that the home environment plays an important part in the early phases of science education. Children come to school with interpretations of their environment which are based on both unfounded and reliable ideas and attitudes. Instruction in science, then, does not start with zero in the elementary school, for every individual entering the school for the first time has made some interpretations of his environment.

SCIENCE AND DEVELOPMENT OF INTELLIGENT BEHAVIOR

It is apparent that children can develop patterns of intelligent behavior. Illustrations of such patterns are the following: questioning magic as an explanation of events; willingness to consider new information; avoidance of dogmatic attitudes; avoidance of gullibility; willingness to change attitudes; making distinctions between fact and fiction; willingness to seek and to act upon reliable information; rejecting personification in making explanations; questioning superstition, prejudice, astrology, fortunetelling. It should be noted that these behavior patterns are important in the development and progress of democracy.

There are also the basic patterns of behavior that grow out of an understanding of man's relationship with the natural forces of the universe. As a result of science, man has become a dominant force in nature. He must learn to operate intelligently with the natural forces of the environment. His difficulties very frequently arise because of his failure to give enough consideration to basic physical and biological principles. Sometimes he rushes into his problems without completely anticipating the events that will follow his action, and as a result he reaps a whirlwind of disasters. Deforestation, overgrazing, losing of soil fertility, introducing a pest, polluting of streams and of the atmosphere, and building a city in a natural flood plane are illustrations of man's failure to take physical and biological factors into his planning.[2]

In a sense, man can never control natural forces. What he can do is to operate with natural forces in a way that will secure what he thinks is most conducive to his welfare. This means, of course, that he must be acquainted with the ways or patterns in which natural forces operate. It does not mean that every boy or girl should become an embryo scientist; instead it places emphasis on the guidance of all individuals toward a realistic and objective outlook upon the problems of life.

If human beings are to become well adjusted to the modern world they must gain a working understanding of the basic patterns of the universe. Some of the patterns which must be considered in elementary education are space, time, change, adaptation, interrelationships, and variation. Content may become more meaningful to the child if he is given a continuous orientation toward these basic patterns of science.

It is apparent from this that science in the elementary school is not a mere job of teaching the child subject matter. In addition to an understanding, it involves a doing, working, and actual operating with the natural forces on the schoolground and in the community, and in experimentation with simple equipment in the classroom. This explains the enrichment that has been brought to the elementary school by the introduction of science. It also suggests a reason for the success of schools which have used science in the experience curriculum.

EVALUATION OF BEHAVIOR OF CHILDREN

If the teacher conceives of the child as an individual who is constantly in interaction with the environment, she has a suitable basis for making an evaluation of her own instruction and of the child's progress in science. The best means of evaluating progress of children in science is through the observation of behavior.[3] Such questions as the following may be utilized in this evaluation: Does the individual display interest in the environment, or is he bored with it? Does he believe everything that he hears? Is he willing to consider new information? Does he exhibit changed attitudes? Does he call for distinctions between fact and fiction? Is he willing to seek and act upon reliable information? Does he reject personification, superstition, prejudice, astrology, fortunetelling? Does he reject guessing and faulty thinking? Does he exhibit willingness to experiment? Does he work with other individuals in planning for activities? Does he use meanings previously learned in new situations? Does he see how science can be utilized to improve his home, schoolroom, schoolground, and community? Increasing attention in research will be placed upon the study of behavior as a means of determining progress in elementary science.

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[2] G. S. Craig, *Science in Childhood Education*, p. 40, Bureau of Publications, Teachers College, Columbia University, New York, 1944.

[3] Katherine E. Hill, *Children's Contributions in Science Discussions*. Contributions to Education, No. 931. Bureau of Publications, Teachers College, Columbia University, New York, 1947.

Joe Young West, *Technique for Appraising Certain Observable Behavior of Children in Science in Elementary School*. Contributions to Education, No. 728, Bureau of Publications, Teachers College, Columbia University, New York, 1937.

WELL-BALANCED INSTRUCTION IN SCIENCE

To offer well-balanced instruction in science the teacher must take a comprehensive view of the child's environment. Children make interpretations of the sky, the atmosphere, the earth (including rocks, soils, and minerals beneath them), other living things, energy and movement, the works of human beings, and social phenomena. The schools must provide children with an opportunity to secure meanings in all of these aspects of their environments each year.

In many cases teachers have hesitated to give instruction in such areas of the physical sciences as magnetism and electricity. This hesitation grew out of a fear that the children, particularly some of the boys, would discover that the teacher knew little about the subject. Elementary school teachers are usually women, and our Western culture has not encouraged women to manipulate mechanical contrivances. This has remained true until recently in spite of the fact that the average housewife uses more electrical equipment than the average man.

The results of the recent war, in which women moved actively and successfully into the armed forces, industry, and research are having a marked effect upon the elementary school as these women return to teaching. We find today an increase in the number of physical science areas being taught in the elementary school. Furthermore, it has been found that, with books and films on such subjects provided for the children, along with the knowledge and skills of some of the boys in the class, magnetism, electricity, and other areas of physical sciences furnish a wealth of natural and challenging experiences for the children, thus easing the teacher's load.

TEACHING PROCEDURES IN ELEMENTARY SCIENCE

Character of Instruction for Children. There has been a tendency to think that instruction in the elementary school should be trivial in character because the objects of the instruction are little children. It has been observed repeatedly, however, that children are well able to come to grips with challenging experiences. Studies of children's questions and responses indicate that children's inquiries very frequently approach the profound, with questions calling for origins and interrelationships.[4] It is the adult (not the children) who has become wearied with the universe.

The potentialities of children for study of natural phenomena are very frequently underrated. This is largely because the content fields are not viewed from the developmental point of view by many workers in the elementary school. Teachers too frequently shy away from instruction which involves principles and large patterns.

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[4] Emily V. Baker, Children's Questions and Their Implications for Planning the Curriculum. Teachers College, Columbia University, New York, 1945.

In traditional practice, the study of natural phenomena was dependent upon incidents—if a bird was observed near the school window, there was a lesson on birds; if a child brought in a frog, there was a study of the frog. The study of natural phenomena on this basis was entirely incidental and accidental in character. On the other hand, if the basic patterns of the universe are values in the mind of the teacher, the bird or the frog may be seen in terms of variation, interrelationship, or change. Science, with its emphasis on the development of resourcefulness and intelligent social behavior, is no longer dependent upon casual circumstances. Incidents and objects serve to illustrate and develop the meanings of science and to assist in the solution of problems.

One difficulty about the incidental approach has been that teachers felt it was their duty to identify all the objects which might be found by the children in the environment. As a result the teacher felt that she was expected to be an expert taxonomist, with ability to identify rocks, plants, insects, birds, reptiles, and so on.

It is important that teachers have no hesitation in admitting their inability to identify many kinds of animate and inanimate objects. They may help the children to utilize the identification resources which are available in the community. It is more important that teachers see the main purpose of science in childhood education and not allow their attention to be diverted by problems of identification which may be puzzling even to the experts in the fields involved. It should be noted that very few individuals, including scientists, are competent to identify objects accurately in more than one or two fields.

Elementary Science a Challenge to Procedures of Recitation. Procedures of the recitation, all too common in the elementary school, and the continual drill characteristic of the skill subjects, have tended to make the school a drab place for many children. The process of learning in science need not be drab. Since the universe is dynamic and children are active, learning can be a stimulating process.

Science instruction constitutes a direct challenge to the recitation. The traditional practice in which the teacher, although she had the answers in her mind, insisted in ferreting them out of children has too long been the teaching procedure in the elementary school. The recitation method is not in harmony with the nature of science. Science, with its opportunities for objectivity, for the use of discussion and experimentation, for the manipulation of forces, for the proposing of hypotheses, is in conflict with the recitation method. Since science instruction involves the interpretation of the environment, it should never be the static process of a question-answer period. Real learning in science involves an interaction with the environment. There is, as a result, an increasing emphasis in schools on providing children with opportunities to learn through experiencing.

In science there must be freedom for discussion, asking questions, proposing proof, testing statements, and using authentic books. The process (the scientific method) of getting the best statement of truth available should be a process that is made clear to children at an early age. How do we know that this is true? How can we find out? How can we test it? These are questions which should have priority over all others in instruction. The child should be encouraged to bring to bear whatever personal experiences, observation, experimentation, and thinking he has to offer on the problem that is under consideration. In this way important meanings may be worked thoroughly into his experience and the teacher will have an opportunity to evaluate the child's thinking. The teacher should focus the attention of the children upon the good elements of thinking and thus create an atmosphere that is conducive to the development of critical thinking.[5]

The teacher should keep in mind that the process of securing truth is as important to humanity as the truth itself. What man considers to be facts today may be in need of change tomorrow in the face of new discoveries. If, in the elementary school, we are concerned with education for intelligent social behavior, we must recognize the importance of developing an appreciation of how man secures reliable information. We need to give education that will assist in propaganda analysis and an appreciation for the establishment and maintenance of unbiased fact-finding agencies.

The process of obtaining answers is not a function for the teacher alone. Questions and problems should be considered by children. If a question originates with the children it may be tossed back to the children by the teacher with some such comment as, "What do you think?", "How would you find out?", "Where would you go for an answer?" Thus, children may be encouraged to bring their thinking to bear on a problem. They may utilize observation and experimental proof, or again they may turn to authentic reading material. The children must have a hand in the development of procedures for securing solutions if they are to develop an appreciation of reliable information. In the use of authentic materials, such as books, films, and slides, the children should secure an appreciation of the place of authentic material in the solution of problems.

In science the teacher can learn while she is teaching. In fact, perhaps the best teaching is done where the instruction involves mutual learning. There should be learning even when the teacher is utilizing content well known to herself, for she is approaching problems with a new group of children and the situation can be novel and challenging for both teacher and children.

Working with Experiments. Science teaching in the elementary school has resulted in introducing simple experiments at all levels of instruction. The experiment serves to clarify problems and to give children an opportunity to visualize certain natural forces in operation. Many of the natural forces are of such a character that children can with safety direct their operation, for instance, the magnetic force of a magnet, electricity in simple electrical circuits, or air pressure. Working with experiments provides opportunity for creativeness on the part of children. A wealth of literature on experiments has been published in recent years for both teachers and children.[6]

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[5] G. S. Craig, *Science for the Elementary School Teacher*, p. 14. Ginn and Company, Boston, 1947.

Experiments provide the teacher an opportunity to make use of the elements of the scientific method and to make them meaningful to children. These elements are: sensing problems, defining problems, suggesting and testing hypotheses, drawing conclusions, and checking conclusions with authentic materials. All these elements can be used by children. In the classroom and in life it is not expected that the individual or group will proceed logically through these steps for the solution of any considerable number of problems. However, the development of an understanding and appreciation of the place of the scientific method in society cannot be overemphasized.

Science worktables are being provided for experiments, where children may work at free times with such things as water, tools, dry cells, electric bells, magnets, aquaria, vivaria. These tables may at times be used as demonstration tables, where certain children, with the teacher, may work out experiments for all concerned. The scientific apparatus of the elementary school is exceedingly simple, based largely on the kind of materials that have meaning to children and can be manipulated safely by them. Such equipment can usually be obtained locally.

In most schools a central closet or supply room is set aside for the storage of equipment of elementary science. This supply room may also be used for audio-visual and other instructional materials. Usually a classroom teacher or supervisor assumes leadership for knowledge of equipment.

It should be observed that experiments are no foolproof way of securing facts. Conclusions gained from experimentation on the part of the children should be checked by them with authentic source material.

The Community as an Essential Resource. One of the rich resources for the teaching of science is the immediate environment of the children. Instruction in science need not be confined to the four walls of the classroom. The effect of seasonal change upon plants and animals, the results of a rainstorm, sleet, or freezing weather, a fault or a fold of rocks, and other events and phenomena may perhaps be observed in the immediate vicinity of the school. School programs should be flexible enough to permit the teacher and the children to go on excursions.

The teacher need not pose as a

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[6] *See* Charles K. Arey, *Science Experiences for Elementary Schools.* Bureau of Publications, Teachers College, Columbia University, New York, 1942.

scientific field expert in the study of the environment. She should assume the role of an older companion and guide who is making observations with the children. Later, in the classroom, the teacher and the children may secure reliable information by making use of authentic literature on these problems that especially interest them.

The teacher should be constantly aware of the problems of the community. Science can play an important role in the improvement of conditions. She should be aware of such pertinent problems as garbage disposal, stream pollution, unsanitary living conditions, disordered and ugly landscape, lack of safety on streets and playgrounds, the impoverishment of soil, and lives hampered by superstition and belief in magic and astrology. In any consideration of these problems in the elementary school the teacher will need to be a close observer of the effect upon the children. The use of such problems adds vitality to the instruction in the elementary school. An appreciation of the importance of science and the scientific method in the improvement of world conditions may be an outgrowth of the utilization of the community as an essential resource in the study of science.

Using Books and Audio-Visual Materials. "It is evident that children do not discover new facts for mankind; but they do discover new facts for themselves and they must do that day by day if they are to become fully equipped for the age in which they will live. Fortunately, they have the assistance of the rich scientific heritage provided for them by the scientists of the past and present."[7] This heritage can be made available to children through books and audio-visual materials.

Books and audio-visual materials serve to give children answers to questions which they already have in mind. What is usually overlooked in educational discussions however, is that these sources may be used to widen children's horizons by providing them with new areas of interest, new challenges, and new problems. Books and films, while designed for children, are serving purposes of in-service professional education. For instance, films on electricity, carefully designed for children, provide teachers with a wealth of background of teaching materials. Likewise, books with experiments and presentations of subject matter are useful in acquainting teachers with the background that has been found suitable to the various age levels. Reading a science book or looking at a science film leads to other types of activities, such as a discussion, performing an experiment, and planning observations and excursions. These activities in turn cause the children and the teacher to go back to books or to films as essential resources for information and for new interest and subjects.

The use of content material does not call for glib reading; in fact, it may mean slow reading with careful consideration of the single sentence, paragraph, page, or episode, and the relating of content to children's observations and experiences. It is frequently desirable to read a paragraph in a book or use a film more than once. The way in which children may use books and films in science is quite different from the way in which they may use a storybook or a fictional film. In science, one is seeking truth, and truth is not secured through superficial reading or looking at films. This calls for books and audio-visual materials planned specifically as to age span. Too frequently such material has been designed to cover the subject involved in a way that is too difficult for the younger children and too easy in places for the older children.

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[7] National Society for the Study of Education, *op. cit.*, p. 93.

As the child proceeds through the elementary school, attention should be focused on the question of the reliability of sources of information. Many sources of information are utilized by children, for example, statements of parents and friends, superstitions, comic strips, newspapers, authentic books and films. As the child proceeds through the elementary school he should improve in his ability to determine the accuracy of sources of information.

PROFESSIONAL EDUCATION OF TEACHERS

The introduction of science into the elementary school has made necessary a group of new competences on the part of teachers. Realizing this, most teacher-training institutions have reorganized their curricula to include science as a part of the professional education of elementary school teachers. The majority of these reorganizations have come about within the past fifteen years.

The demand for in-service education in science in city, county, and state school systems has become widespread since the close of World War II. Attention is being directed today to democratic means of improving instruction. Such programs are based on cooperation among individual teachers and between teachers and administrators. A committee elected by the teaching staff is established for the purpose of planning and developing a program for the improvement of instruction in elementary science. This committee may work with all agencies in the community that have contributions to make to the objectives involved. The committee in science is usually composed of teachers at all levels of instruction in the elementary school. In the committee there should be representatives from the parents association, from each field of secondary science, and from the scientific agencies of the community, such as public health boards and conservation societies. Also included in its membership should be the leadership among the classroom teachers that is emerging in the field of elementary science in the school system.

Consultants from outside the school system may be invited by the committee to render professional service. In most cases the chairman of the in-service program in science is neither a member of the administration staff nor a specialist in science. Some of the most successful programs have been those in which a classroom teacher elected by the entire teaching body served as the chairman. The in-service program is developing leadership in science among classroom teachers, both on the local basis and in county and state programs. This leadership assures the permanence of the movement of science in the elementary schools.

This program calls for a kind of supervision in which supervisors work cooperatively and democratically with planning groups. The work of the supervisor consists in developing and carrying out the programs approved by the planning groups and in making certain that the teaching staff has an opportunity to think through the purposes of science in childhood education. The supervisor can aid the planning committee in science by providing guidance in evaluating instruction.

At no time has there been more interest on the part of lay people in science instruction for children than there is now. This is especially indicated in the demands for the consideration of elementary science as a subject for parent association conferences. It is important to include the community in plans for in-service education.

SUMMARY

Science in the past few years has been accepted as an essential aspect in the all-around education of children. One aim of such education is the development of the abilities of children as individuals to the end that they will be able to secure the maximum of good for themselves. Another major aim is the development of the individual for social responsibility. To realize these aims it is necessary that schools analyze carefully the unique contributions of science to the intelligent adjustment of the individual to modern life, resourcefulness, and the development of intelligent social behavior.

Science requires a group of new competences of teachers. Institutions of teacher education have been reorganizing their curricula to provide elementary teachers with professional work in science. School systems throughout the nation are inaugurating extensive in-service education in science along democratic and cooperative lines. A leadership in science among classroom teachers in the elementary schools has emerged.

The Elementary Science Laboratory

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MANY elementary school teachers are hesitant about taking steps to introduce science to their classes. This should not be the case. With resourcefulness and enthusiasm on the teacher's part it is easy to carry out a successful and meaningful elementary science program.

What might be done to encourage such a program locally? Science centers, workrooms, or laboratories may play a vital part in its development. Within a community, if a teacher or group of teachers is given the opportunity to assume leadership, an effective and worth-while science center may be developed. The teacher with initiative will observe children's interests and capitalize on them in evolving a science curriculum which will include laboratory experiences as an indispensable part of the program.

If the objectives of science education are kept in mind in setting up a program which includes the utilization of an elementary science laboratory, there can be no better teaching technique, for there is no substitute in science education for the creativeness provided in firsthand experience with materials and equipment. The elementary school teacher must ever be aware of the social function of science and present science projects that are needed as learning experiences in discovering this role of science. Other aspects in the study of science, or rather other significant features to consider, should be the contributions of science to the aesthetic, economic, and social life of the individual. These contributions should not be neglected. Since science involves experimentation and interpretation, laboratory experiences are of value only to the degree that they provide for and encourage such experimentation and interpretation.

What steps might be taken to introduce a laboratory center? The first problem is generally that of securing space. A room within a given school building is one solution; on the other hand, some school systems set up centers in the administration building of the local department of education. Each of these plans has its own advantages and limitations. Perhaps the most desirable situation would provide for a science laboratory in every elementary school.

No matter where the science laboratory is located, it should be set up in such a manner that the maximum number of individuals may secure the greatest opportunity for experimentation and interpretation.

Planning the room and securing equipment are the next problems. Adequate shelf and closet space should be provided for the storage of equipment and materials. Provisions should also be made for the science room to be darkened so that projection equipment may be used effectively when desired.

The science center should be as colorful and inviting as possible. Too many people associate science and experimentation with the "ivory tower" concept. Many others visualize the laboratory as a place where complicated, formidable-looking, dusty equipment is housed for someone else to use. The laboratory should be attractive, and it should be so arranged that it will be easy for even inexperienced teachers and immature pupils to use it.

There can hardly be too much storage space in an elementary science laboratory. The greater the provisions made for storage, the more orderly the room should be. After storage space has been provided, bulletin boards, set at the eye level of the people who will view them, should occupy all remaining suitable wall space. Many believe that the value of an attractive bulletin board cannot be overestimated, while some contend that it has already been done. However, it is an excellent teaching device, but one that is frequently neglected. It lends itself to countless possibilities; for example, it may reflect individual interest, bear evidences of a committee project, or perhaps carry representations of an entire class activity. A good bulletin board, whether made by teachers or pupils, should show at least two forms of effort—good selection and good organization. Blackboards, either portable or stationary, should also be provided, and tables of the proper height for working should be installed.

In the laboratory a sink, running water, and some source of heat for use in carrying out experiments should be provided if possible. A functional laboratory may be established, however, without these desirable items.

Other equipment need be neither elaborate nor expensive, but it should be systematically labeled and carefully stored. Small pieces of science equipment should be classified alphabetically and placed in storage drawers. Sometimes it is more satisfactory to group equipment together and set it away according to units of work; for example, all equipment needed for heat, light, or sound experiments may be kept together. This makes for orderliness and efficiency. Individual groups using the materials should work out the system that functions best for them. A must in every laboratory is a filing cabinet (an orange crate may be used for this purpose) for pictures, charts, and other bulletin board materials that inevitably accumulate. In this case, also, functional filing systems should be installed. Much equipment may be gathered locally at little or no expense, and other materials may be secured from a scientific supply house. Equipment catalogs will be sent on request free of charge from supply houses, and should be available in every science center. After a careful examination of catalogs, the ordering of equipment should not be too difficult.

SELECTION AND ARRANGEMENT OF LABORATORY MATERIALS

Presented below are suggestions for the classroom teacher who wishes to secure elementary science materials. It should be kept in mind that this is only a partial list. Much of the equipment mentioned may be obtained locally rather than through a supply house. Children should always be encouraged to bring available and desirable environmental materials to school. It is not necessary that they be gathered hastily, but rather as need for them arises during science activities. At first glance the list may seem long, but as it includes materials for all maturity levels and many content areas, probably no one room would have all of the items that are mentioned.

CLASSIFIED LIST OF MATERIALS

AIR AND WEATHER

Mercurial barometer tube, supplied with glass mercury well and pipette for filling
Aneroid barometer, preferaby a classroom demonstration model
Hygrometer, airguide, giving percentage of relative humidity and the temperature of the surrounding air
Wall thermometer, Fahrenheit, any good household thermometer
Weather thermometer, Fahrenheit, outdoor window type
Air pumps, which may be purchased for elementary school use
Anemometer or wind gauge, a working model to illustrate the principles involved in measuring wind velocity
Wind vane, a small working model
Rain gauge and measuring stick, similar to the ones used by the United States Weather Bureau may be secured
Weather Forecast Chart with directions for use, also blank maps of the United States for plotting weather data

MAGNETISM AND STATIC AND CURRENT ELECTRICITY

Lodestones, natural magnets
Bar magnets, with North Poles painted red
Cylindrical Alnico magnets, a comparatively new alloy type magnet composed of Aluminium, cobalt, and nickel
Small U-shaped and horseshoe magnets
Soft iron bars, darning needles, knitting needles, iron filings, and a random collection of metallic objects—pins, pens, clips, nails, and other similar articles
Compasses for plotting and exploring magnetic fields
Small samples of metal sheets—such as copper, iron, tin, and zinc
Magnetic needle for studying magnetic fields
Magnetic dipping needle for measuring the angle of magnetic dip for a given point on the earth
Electroscope with pith balls. A homemade model consisting of a small wooden stand with hook to hold the suspended pith balls may be easily made
Glass and hard rubber friction rods
Silk and woolen clothes for the electrification of friction rods
Dry cells and spools of copper wire
Small bulbs and miniature sockets
Fuses (new and worn out)
Push buttons
Porcelain knife switches
Small battery motors

HEAT

Fire drill to illustrate kindling of fire by friction
Ball and ring apparatus showing expansion of metals when heated
Compound metallic bar showing unequal expansion of metals
A model thermometer
A conductometer rod to show the various rates of heat transference in different metals

Convection box for the study of convection currents in the air. (This may be purchased or very easily made. A chemical smoke—titanium tetrachloride—to be used with the convection apparatus may be purchased. This chemical when exposed to the air produces a smoke screen without any fire.)
Electric hot plate
Bunsen burner
Candles of all sizes
Lamp chimneys
Alcohol lamps

LIGHT

Lenses, prisms, magnifiers
Field glasses
Color rotators for showing the results of mixing colors
Color disks for showing shading, blending, and changing of colors
Eye test chart
Flashlights

SOUND

Xylophones and other musical instruments
Tuning forks
Telephone sets

SIMPLE MACHINES

Boards illustrating inclined planes
Pulleys
Screws
Wedges (including knives, pins, needles, nails)
Rollers, roller skates
Levers, including a teeter board, nutcracker, shovel, can opener, and similar articles
Wheel and axle
Many mechanical toys illustrating principles of simple machines

THE EARTH AND THE UNIVERSE

Globes of all sizes—at least one large globe of the earth. (A globe of the earth set on a base seems to be more satisfactory than either the suspended or cradle types for elementary school work.)
Balls of various sizes
Lantern projector and glass slides
Soil samples—clay, sand, humus, loam
Rock and mineral specimens
Fossils and shells
Sand box or sand table
Clay and plaster of Paris
Collection of elements

LIVING THINGS

Aquaria and aquarium cement
Terraria (may be homemade)
Animal breeding cages (may be homemade)
Aquarium sand and pebbles
Fish, snails, toads, frogs, turtles, mice, rats, hamsters, guinea pigs, rabbits, birds, cocoons (moths), chrysalids (butterflies), or any other animals or insects that can be kept in the classroom, cared for and studied by the children
Plants for the aquaria and terraria
Seeds—beans, peas, corn, lentils, squash
Flowerpots of all sizes

MISCELLANEOUS SUPPLIES AND APPARATUS

Scissors
Glasses, bottles, jars, beakers, flasks
Balance scales
Sealing wax
Sandpaper, steel wool
Rubber bands
Test tubes, test tube brushes and racks
Microscope, glass slides, and medicine droppers
Cork and rubber stoppers, assorted sizes
Rubber and glass tubing
Splints
Funnels
Pliers and forceps
Ring stands and clamps
Glass cutters
Wire gauze
Teakettle
Pens, pencils, inks, paints, brushes, crayons, colored chalk
Salt, soda, sugar, vinegar, alcohol, iodine, ammonia, starch, bleach water, vaseline
Cups, saucers, plates, knives, spoons
Thread, string, cord, paste, glue
Construction paper, cardboard, cellophane, blotters, tissue paper
Screwdrivers, hammers, saws, files.

Catalogs are not the only source that should be represented in an active science center. There also should be professional books for teachers, basal and supplementary books for pupils, and current elementary science periodicals.

Children and teachers must develop the habit of going to authority for information and to check conclusions. In learning the value of consulting books, pupils are recognizing one of the most important steps in scientific methods.

Ideally, the elementary science center should become a place where teachers and pupils may check tentative conclusions by using actual materials to test out their findings and compare them with the results obtained by more advanced experimenters. Hence, the elementary science center, through its informal and attractive setting, its wealth of materials and equipment, and its collection of reference books, can contribute as much as any other single factor to the development of a child's ability to approach problems critically, to solve problems, and to question and check conclusions. It should also help to develop a child's resourcefulness and contribute to the development of desirable social behavior.

Where elementary science laboratories have been established, the resulting interest and enthusiasm have suggested that there is no substitute for experimental observation in science teaching.

What can the elementary school teacher do if there is no laboratory in which to work? A very effective science program may function without any laboratory, workshop, or center whatsoever in which to conduct activities. Space may be allotted in the regular classroom and observations may be made there that will contribute adequately to the growth and development of the children. A minimum of simple equipment may be satisfactorily stored, a science table at the height appropriate for the size of the children it is to serve may be secured, and shelves may be set up for displays of carefully selected and labeled materials. The addition of terraria, aquaria, and potted plants will add considerably to the interest and attractiveness of the classroom. All material, whether biological specimens, glassware, or other physical apparatus should be kept in clean and orderly condition. It would seem that the resources for elementary science instruction might vary directly with the resourcefulness and the enthusiasm of the teacher.

Biological Materials in the Program of General Education

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FACTS, concepts, and conclusions which stem from studies of plants and animals, including man, comprise the biological materials available to the program of general education. The existing fund of information is vast; it has been in process of accumulation from the days when men first recorded their superficial observations of living things, to a present which finds us concerned with the potentialities of bacterial warfare, or the physiological and genetic effects of fission products. Many discoveries have had and will have only nominal influence upon our culture pattern; others have determined and will continue to determine the material success, if not the very survival of mankind. One of the challenging problems of the moment is to select from among the available materials those which will make greatest contribution to the well-being of the average learner.

When the first atomic explosions were reported in the daily press, a good many educated people doubtless were inclined to regard them as purely physical phenomena, which were concerns of mathematicians and physicists alone. This reaction, however, was short-lived, for the pressing problem soon became one of potential effects upon plants, animals, and, above all, man. Here, again, the essential oneness of all modern science was reemphasized, as it is likely to be almost any day when a discovery in a chemistry, physics, or engineering laboratory suddenly makes a given substance a material of primary importance to our comfort and security.

We have profited and shall continue to profit through improvement of cultivated and domesticated varieties of plants and animals, through control or partial control of the pathogens and competitors, and through improved practices of technological or other origin that make for wiser and more satisfactory utilization of natural resources. The latter item alone is one of challenge, for organic resources loom ever more important in a world whose human population is on the upgrade. Shrinking mineral deposits must sooner or later focus attention far more sharply than at present upon the materials which are readily renewable, and which will be available at any foreseeable date in the future—the materials of the organic world. It has been said that "science is an inescapable factor of modern cultures."[1]

That very significant contribution to general education can come from study of the foregoing and similar propositions is a thesis not open to question; it is an area of thought and investigation which must furnish many of the facts and conclusions that make for wise decision. As previously suggested, however, it must be recalled that biological knowledge is not an isolated entity; it has come into ever closer alliance with other sciences, and has become, in fact, the "physics and chemistry of life," with the electron microscope and the Geiger counter taking their places as accepted if not commonplace tools of the trade. Moreover, it is necessary to carry our thinking a step further, to the conclusion that *biological or any other scientific knowledge can be of only slight benefit to civilization unless it becomes the basis for intelligent decision and action.* To cite an example, knowledge of hybrid corn and its potentialities *might* have remained in the realm of the purely academic, as did Mendel's pioneering genetics findings for many years. The fact that this did not happen suggests that we have made progress on some sort of educational front, but it is not grounds for complacency, for many cases could be noted wherein potentially valuable knowledge has not been put to widespread use, to the detriment of the quantity and the quality of our material possessions.

If the benefits of biological knowledge are to aid in guiding decisions of the body politic, it follows that citizens in general must have some knowledge in this area. The desirable type of knowledge is that comprising functional information, concepts, and understanding of principles, and certain skills, attitudes, and appreciations, substantially as set forth in *Science Education in American Schools*,[2] but with the ultimate test being whether a given concept, skill, or attitude will make worth-while contribution to intelligent behavior. That biological instruction can accomplish such results, documented by overt behavior, has been rather strongly indicated in the results obtained by Bingham[3] and Urban.[4] Somewhat less objective evaluations of instructional effects derived from experimental courses developed in summer workshops at Teachers College,[5] Columbia University, corroborate this conclusion.

There is another phase of biological, and for that matter all science education, however, which must not be overlooked in our zeal to improve the average or subaverage pupil and future citizen, although recently there has been some tendency to do so. This second type of instruction may be designed to produce science research workers and teachers (who in turn produce more science research workers) from among individuals of superior ability in the rising generation.

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[1] National Society for the Study of Education, "Science Education in American Schools." *Forty-sixth Yearbook*, Part I (Chicago, 1947), p. 13.

[2] *Ibid.*, pp. 28-29.

[3] N. E. Bingham, *Teaching Nutrition in Biology Classes.* Contributions to Education, No. 772. Bureau of Publications, Teachers College, Columbia University, New York, 1939.

[4] John Urban, *Behavior Changes Resulting from a Study of Communicable Diseases.* Contributions to Education, No. 896. Bureau of Publications, Teachers College, Columbia University, New York, 1943.

[5] Courses prepared in the process of experiments conducted by the Bureau of Educational Research in Science.

As was intimated in the preceding paragraph, there is a tendency on the part of some educators to feel that the better type of pupil may be left to his own devices with reasonable safety. This may or may not be a sound point of view, but there is some evidence bearing upon the proposition which suggests that all is not well with the *status quo*. The current condition of scientific manpower is summarized in the Steelman Report to the President,[6] wherein the point is made that ". . . the indispensable resource for progress in science is an ample supply of highly trained scientists and technicians. As a nation, we face serious shortages in this field."[7] In the same publication it is suggested that exigencies of World War II deprived the nation of about thirty-five thousand scientists (who otherwise would have been trained), and that postwar training is suspected of being sub-par with respect to both quantity and quality.

THE PRESENT STATE OF INSTRUCTION

In the existing pattern of the common school, which is here assumed to embrace grades one to twelve, biological materials are or may be encountered on several maturity levels. They are, for example, represented in the program of elementary science, but to an extent which appears to be quite variable in different school systems. In the junior high school, biological facts and concepts are included in general science courses, and perhaps to a rather minor extent in some programs of social studies. And here again practices are not uniform among the many schools of the nation. Biological courses commonly are available as electives in the senior high school. The program as a whole (suggesting as it does the possibility of some repetition) finds its psychological justification in the concept of gradual and concomitant acquisition of knowledge, accompanied by progressive perfection of the learner's concepts.

However, two major shortcomings of present practices have become apparent in so far as the foregoing program is concerned. The first problem involves the fact that in many school systems large numbers of pupils may complete the entire curriculum, yet have little or no contact with science instruction, including the biological materials. Failure to achieve the desired standard begins in the elementary school, where all pupils more or less share the same educational experiences, but where, in the words of the Steelman Report[8] "the science offering . . . has been and still is in many places incidental." In some junior high schools, general science is a required subject, at least in one or more of the three grades, but this is by no means universal practice. At the senior high school level, biological courses generally are in the elective category, and while they have proved to be quite popular in some school systems, they have languished in others. For example, Glass[9] reports that approximately one-eighth of the high school population was taking the course in general biology in 1939-40, basing this conclusion upon the reports of over three thousand biology teachers generally distributed in schools throughout the country. Thus it may be seen that in many schools the average pupil was and probably still is permitted to finish twelve grades without having more than "incidental" contact with the materials of the life sciences. Admittedly, this is an unsatisfactory state of affairs, although we may find some gratification in the probability that the comparable status of biological instruction was even less acceptable twenty or thirty years ago. The study of science materials is on the upgrade in the common school, but it may be strongly questioned whether some of these materials receive the educational attention that is justified by their obvious impact upon the world in which we live.

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[6] J. R. Steelman, "Manpower for Research." (Vol. 4 of *Science and Public Policy*), Washington, D. C.: United States Government Printing Office, 1947.

[7] Steelman, *op. cit.*, p. 1.

[8] Steelman, *op. cit.*, p. 68.

A second criticism of existing biological instruction in the common school is that in many classrooms the materials presented do not implement the purposes of general education; to be more precise, they either reflect archaic practices, or no particular discretion has been exercised in their selection. Anyone who has engaged in very much school visitation knows that this charge is justified in varying degrees. The error of commission is not difficult to rationalize: it relates to a common failure to recognize clearly modern objectives of instruction, to the fact that the accumulated fund of biological knowledge available for selection is vast and sometimes confusing, and to the circumstance which finds some teachers blindly pursuing personal hobbies with respect to either subject matter or methodology, to mention only a few of the apparent pitfalls. The net result is that important applications of biological information to common everyday affairs are likely to be disregarded, thus contravening the objectives of general education. Improvement of the existing situation seems to depend primarily upon general acceptance of defensible objectives, and effective implementation of these objectives by those who teach and those who are responsible for courses of study.

On a first front, then, the problem is one of curriculum administration, to assure that all pupils of the common school have a reasonable amount of contact with the facts and understandings of science, including biology; on a second front, sincere effort must be made to insure, in so far as possible, that instruction shall have dynamic relationship to the many problems and decisions of life. In the latter connection it often has been urged that teachers take their cue from real situations in immediate community life, and there is no disposition here to decry the value of such an accentuation. It should not be forgotten, however, that there is another and larger community—a world community—and that every area of human knowledge can make a contribution to a study thereof, a contribution that should be part of the common heritage of all people. Clearly, one function of the teacher is to guide the studies of his pupils, hence it becomes the teacher's responsibility to seek an appropriate distribution of emphases.

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[9] H. B. Glass, "Enrollments, Teaching Loads, and College Relations of Secondary School Biology" in Oscar Riddle et al. *The Teaching of Biology in Secondary Schools of the United States* (Union of American Biological Societies, 1942), p. 17.

BIOLOGY IN GENERAL EDUCATION

The writer believes that the aim of general education is in no way opposed to a program which will provide the research workers and scientific leaders that the nation needs now and will require in increasing numbers as time goes on. This point can hardly be stated too emphatically, because some educators appear to have assumed that a general education program is and must be designed primarily if not exclusively for slow learners. The fact is, on the contrary, that education for intelligent participation in a democratic society need not result in a lowering of standards, including reduced educational opportunity for gifted pupils, and it clearly has not done so in many experimental situations where this principle has been accepted as a guiding rule. It is obvious that some learners will gain better understanding of a given concept in a particular learning situation than others will, and where diversity of pupil ability becomes a burden, relief may be sought in a guidance or counseling program which will establish more homogeneous grouping. Moreover, there is nothing inherent in the general education aim that should tend to establish it as the foe of specialization; rather, there is recognition of the principle that good ability on the part of a learner should not be used as an excuse to deprive him of the right to gain basic understanding of the world about him. Actually, the number one perplexity remains what it has always been: at what maturity level should specialization be undertaken? Some enthusiasts would (and do) encourage a surprising amount of specialization in the upper grades of the common school, going along with what they interpret to represent the valid interests of individual pupils. At the other extreme, equally sincere teachers seemingly live in a daze of propaedeutic expectancy, and would favor a succession of broad-field courses leading into the rarefied atmosphere of doctoral training. Doubtless the optimum procedure is represented by neither extreme, but by some intermediate position.

Even if the common school population had remained static during the past fifty years (which it did not), and educational aims had persisted unchanged (which is equally untrue), biological materials appropriate for instructional purposes at the turn of the century would no longer be suitable today. For in the interim we have learned a great deal. To cite examples in three rather palpable areas, the great expansions of the sub-sciences of physiology, genetics, and ecology have all come since 1900. Moreover, our social environment has changed, and matters once considered of primary importance in our lives are now all but forgotten, whereas new experiences have risen to prominence in our behavior pattern.

The problem of the moment, then, is to select wisely from the wealth of existing instructional materials without too much concern about traditional content or any lurking enthusiasm for mastery of a "subject" at the lower levels of educational experience, and to shape emphases so that *the general pattern of education in the schools will best fit pupils and future citizens to make appropriate choices and decisions in the continuous educational experience of life.* In so far as general science and general biology are concerned, we have progressed beyond the point of being particularly concerned about the ratio of botany, zoology, or physiology in any course of study or curriculum, and we are free to weigh the relative importance of any topic or concept, in terms of pupil needs, or significance in the local and world community.

In such an unhampered approach to instruction, several subareas stand out among the materials of the life sciences as being of special notability or moment. The facts and concepts thereof may be grouped in the form of units or in terms of problems, but it is not the purpose of this discussion to weigh the respective merits of the two approaches. Be the approach what it may, the position here affirmed is that any unit or any problem area involves some facts and concepts which are appropriate for elementary school instruction, others that are suitable for the junior high school, and still others that are more timely at the senior high school level. Under this application of psychology, the learner may be thought of as one who gradually and progressively becomes more capable of making decisions that are compatible with available evidences. In so doing, he fulfills the aim of a general education program.

In the following numbered paragraphs the writer's own interpretation or grouping of broad subareas is given, together with certain notes and observations pertaining thereto. Admittedly, there are other possible arrangements of study materials which could be defended with good logic; hence, no special significance should be attached to the one which appears here.

1. *The adaptations of organisms,* to incorporate the cell principle, the basic structural components of plants and animals, and representative physiological phenomena, with special attention to the human mechanism. The facts and concepts here stated or implied are basic to comprehension of many others which follow; in themselves, moreover, they have some important implications with respect to human affairs.

2. *The changing environment and its relationship to man's welfare.* This subarea includes consideration of physical and biological factors of the

environment; the nature and interrelationships of community life; and the effects of human activities upon communities, embodying the precepts of conservation. It is a subarea of vast potential importance to our developing culture, and one from which lessons must be learned if we are to make continuing and satisfactory use of natural resources.

3. *Nutrition*, with specific attention to the photosynthetic activities of green plants, the use of foods in plant and animal bodies, and the dietary requirements of man. Little or no comment seems necessary to support the contention that this subarea relates intimately to vital human concerns. Taking the world as a whole, man has not been too successful in efforts to assure an adequate and dependable food supply.

4. *Reproduction, evolution, and heredity*, with specific reference to the nature of reproductory functions in representative plants and animals, variation, evolution, the hereditary mechanism, and practical applications of our knowledge concerning genetics. This subarea provides a mass of information which is of primary importance when it comes to assuring future and more adequate supplies of biological materials, to mention only one item.

5. *Biological production*, involving the wise use of plants and animals found in nature, and the raising of cultivated and domesticated varieties to meet increasing needs for foods and other materials of commerce. This subarea and the one which follows, obviously are concerned directly with a variety of practical applications.

6. *Control of natural enemies and competitors*, emphasizing problems created by the presence of such natural enemies as microbes and parasitic worms; the status of competitors, such as weeds, and insect or rodent pests; together with techniques and natural agencies employed in combating the relatively undesirable organisms.

Despite certain rather discouraging features of the *status quo*, which previously have been mentioned, considerable progress toward desired goals has been made in biological instruction. In an increasing number of school systems, general biology courses as well as general science courses have come to serve something that at least approximates a general education purpose. Furthermore, a growing literature attests to continuing advancement toward a more functional type of instruction. To certain studies previously cited might be added that of Manwell,[10] which reports the results of practical instruction in health practices; that of Raskin,[11] which is concerned with an evaluation of existing textbook dictums in terms of tested truths about the use of alcohol; that of Laton and Bailey,[12] which presents an analysis of genetic principles for the benefit of teachers;

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[10] E. A. Manwell, *Health in High School Science*. Edwards Brothers, Inc., Ann Arbor, 1947.

[11] Abraham Raskin, *Biological and General Science Textbook Material on the Effects of Alcohol*. Published by author, New York, 1942.

[12] Anita D. Laton and Edna W. Bailey, *Genetics*. Bureau of Publications, Teachers College, Columbia University, New York, 1939.

and that of Burnett,[13] which deals with a classroom experience with certain conservation matters, and results accruing therefrom. The publications mentioned are only some of those which recently have made contribution to a redirection of biological instruction in the schools along the various educational fronts of content, organization, methods, and identification of results.

In conclusion, it should again be noted that biological materials continue to be important in any scheme of general education which purports to prepare the citizen for more intelligent participation in the affairs and decisions of modern society. When we contemplate the more recent past we may conclude with some satisfaction that science instruction in the secondary school, including instruction concerned with the understandings, facts, and concepts which are peculiarly within the domain of the life sciences, has been making progress of the right sort; but at the same time we must recognize that this progress has not been uniform in the schools of all cities, towns, and rural centers, and that modernization of the science education program in the country as a whole is a goal still to be attained. More specifically, instruction involving science materials needs to be brought within the ken of all learners, on the one hand; on the other hand, it must be assured that such materials have real and dynamic relationships to the common experiences of present-day life.

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[13] R. W. Burnett, "Conservation: Focus or Incident in Science Education." *Science Education*, Vol. 28, March, 1944, pp. 82-87.

The Challenge of the Atomic Age

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No discussion of science education today would be complete without a direct reference to the new world ushered in by atomic energy and the A-bomb. That the new world, the Atomic Age, is here, no one can doubt or question. And the break with the past is sharper than at any time in the world's history. So true is this that the past seems to offer but little guidance for the future. Men reared and molded by pre-atomic events and economic conditions are not equipped with adequate understandings, skills, and attitudes to face the problems of the Atomic Age. Perhaps present conditions could not have been foreseen in any case. After all, the A-bomb on Hiroshima did put an end to the "old world" with extreme suddenness and dispatch. But from here on, *atomic energy must become everybody's business, for it is everybody's business.*[1] This is the crucial difference between problems created by atomic energy and those created by the more conventional sources of power.

The Atomic Age was born under the dark shadow of the A-bomb, which today is more real than the future possibilities of atomic energy for human welfare. And it is not just the problem of atomic energy and the A-bomb which must be solved; a solution must also be found for the greatly sharpened economic, social, and political problems inherited from the pre-atomic world, not in terms of the "old-world" values but in terms of their reconstruction and of emerging values in the new world. There is no question but that this backlog of unsolved problems complicates greatly the current national and international situation. It presents the greatest challenge American democracy has ever faced. But we can take hope from these facts, often denied in motive and in action:

> The new world of atomic energy is our world, and in a very real sense we can make of it what we will.
>
> With atomic energy we can make the new world a place where man can reach his full stature in the sight of his fellowmen.
>
> The new world will not dissolve in the radioactive vapors and rubble of a thousand Hiroshimas unless man wills it, for there is nothing inherent in atomic energy that need drive man to make such a choice.

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[1] See David Lilienthal's Crawfordsville, Indiana, speech made on September 22, 1947, "Atomic Energy Is Your Business." Mr. Lilienthal is Chairman of the United States Atomic Energy Commission. For a reprint of this speech, write National Committee on Atomic Information, 1749 L Street, N. W., Washington, D. C.

THE COMING NEW WORLD

The hope expressed above is based on more than wishful thinking. *There is an exceedingly bright future ahead for people everywhere* if man can avoid war and learn to deal effectively with other hazards of the Atomic Age. For more than a year the Atomic Energy Commission, created by Congress in 1946, has been working on short- and long-range plans for developing atomic energy along peaceful lines. Research and developmental work on atomic energy are already well under way on a significantly large scale, not only in this country but in other countries as well. Atomic scientists, government officials, and industrialists are working together to harness atomic energy for the welfare of man. The new world is definitely here, although in its infancy. What will this new world be like? What kind of world will the generation now in the schools live to see materialize? Although such questions cannot be answered with definiteness and in detail, the broad outlines can be sketched in on the basis of predictions that have been made since Hiroshima.[2] But it is only fair to warn the reader that some of the predictions are no more than "gleams in the scientist's eye" at the present time.

Let us begin with a basic factor—energy. All the experts agree that in the new world energy will be cheap and plentiful. Most of it will come from a yearly consumption of a relatively few pounds of the nuclear fuels uranium and thorium. There is enough of both in the earth's crust to last for a great many generations. Perhaps some of the energy will come from present sources, but not directly as now. Techniques and machines for transforming energy will be vastly different from those now in use. The reciprocating engine will disappear, and perhaps the turbine too. Already the scientists and engineers are thinking about how to transform nuclear energy directly into electrical and mechanical energy. Atomic power plants will dot the world's landscape. Even now a large pilot atomic power plant is being constructed by private industry under government contract. Such regions of the world as the Far East and South America will be well on the way to complete industrialization, and a much higher standard of living will prevail than now exists in these regions. Our young people now in school may live to drive a plastic car powered by atomic energy. Public transportation will certainly be atomic-powered. Already the United States Navy is working on plans for an atom-propelled ship, and a jet-propelled army plane powered by an atomic reactor is nearing the blueprint stage. Transportation will be exceedingly fast and safe. Rocket ships will be out of the comic book and on the blueprints, and perhaps interplanetary travel may become a proper subject for sober conversation.

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[2] See "The Atom in Our Time," *Kiplinger Magazine*, September, 1947, for a fairly conservative prediction, and Robert Hutchins' article, "The Bomb Secret is Out," *American Magazine*, December, 1947, for a more optimistic prediction concerning atomic energy.

Factories of all sorts will dot the world's landscape. They will be almost completely automatic. Relatively few workers will be needed to run them.[3] At Oak Ridge there is a plant for separating U-235 from U-238. It is the largest factory ever constructed; only a few hundred men are needed to run it. To operate it manually would require nearly a million men. At Hanford the largest plant ever to be built in peacetime is under construction. It too will be automatic. An almost endless stream of consumer goods will pour from automatic factories with regularity. "Booms" and "busts" in the industrial world will be unknown as will labor-management difficulties. The needed flow of goods between countries will be unhindered by trade barriers. World trade will be less in proportion to the world standard of living than now. Each world region will be nearly self-sufficient in the basic materials for a high standard of living.

Food, another basic factor, will be cheap and plentiful. The agricultural revolution now well under way will completely change the food production picture. Malthus will be relegated permanently to the archives. The use of tracer elements in agricultural research and the use of direct radiation in production will enable the farmer to exercise undreamed of control over the soil and over plant and animal growth. The secret of photosynthesis will be revealed in all its detail, and artificial photosynthesis will ensure the world against famine and poverty. Food will be produced with the help of direct radiation to meet nutritional specifications and the idiosyncrasies of consumers. Animal and plant pests of all kinds will be under complete control. Food production will be capable of indefinite expansion to meet the needs of an expanding world population. Even deserts will be made to bloom and support a large population.[4] Densely populated sections of Europe and Asia will find relief in a redistribution of populations which will create great changes in international relations.

In the new world, it is unlikely that the young people now in school will die prematurely of cancer or heart disease or circulatory defects or from any contagious diseases or from many of the other human ills that afflict us now. New basic knowledge obtained with tracer elements and other new techniques will reveal the facts concerning the actual functioning of the human body. Diagnosis with tracer elements will be quick and sure. Treatment with atomic radiation and other therapeutic methods will bring prompt relief to diseased tissues and other malfunctions. Perhaps hospitals will disappear, and diagnostic and treatment clinics will take their place. Many of our young people will hit the century mark, but this will bring them little publicity. This picture of health and well-being may seem fantastic, but already radioactive phosphorus is being used to discover just how immunity is really developed; tracers are being employed to find out the actual functions of hormones, vitamins, and many drugs; thyroid disorders are being conquered by radioactive iodine; Alpha radiation is being developed to replace the less effective X rays; and soon radioactive isotopes will bring relief to those suffering from hardening of the arteries. In the new world medical diagnosis and treatment will be easily accessible to all. No one need be ill, at least not for long.

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[3] E. W. Leaver and J. J. Brown, "Machines Without Men," *Fortune*, November, 1946.

[4] See Phillip Morrison, "Atoms for Everybody," *New Republic*, March 24, 1947.

Materials and processes to produce the consumer goods will be radically different. New metals will be tailor-made to fit particular specifications. New elements will be created as needed. Materials for clothing will be almost entirely synthetic. Our young people now in school will likely spend their declining years in a plastic home, more durable, more sanitary, more healthful than the best we now have. Houses will be completely air-conditioned, regardless of their geographical location. Cities will be smaller and more evenly spaced over the countryside. Slums will be gone. Streets will be wide, and parks and playgrounds will abound.

There will be much leisure in the new world. No one will have to work long days to produce the needed goods and to perform the needed services. Most of the working population will be employed in service occupations. There will be ample opportunity for everyone to participate in constructive recreational activities. A network of large recreational areas will cover the country, if not the world. They will be linked together and to centers of population by fast transportation. Perhaps the Sahara and the Arctic region will become great international playgrounds accessible to all who choose to use them.

The full development of atomic energy will force the new world into such close interdependence that war and international strife will be impossible. Human relations will reach new heights, and matters of the spirit will assume new and greater significance. Many pre-atomic values will be reconstructed; many will be cast off; many new values will emerge. Some of the old value words will still be around—justice, freedom, democracy—but they will carry new meanings in thinking and in action. No utopia will emerge in the new world, for men and women will still strive to scale new heights, but not in a competitive mood. Perfection will not be reached, but it will be more closely approximated than at any time in the world's history.

This, then, is a crude and incomplete picture of the new world to be. The new world is largely the result of the release and control of nuclear energy, the most recent and by far the most important step in the steady advancement of science. The development of atomic energy, in the words of A. H. Compton, "is compelling man to become human." It is plainly either this or extinction, for in the infant Atomic Age there are many hazards. The young people in our schools will not inherit the new world without a struggle. There exist crucial problems of national and international scope, which, if not solved in terms of genuine human welfare, will destroy the new world in its infancy.

HAZARDS IN THE NEW WORLD AHEAD

By far the greatest threat to the new world is the diversion of atomic energy into destructive purposes. The A-bomb on Hiroshima[5] has given us but a mere glimpse of what might be expected if another war comes. Make no mistake, *the destructive power of the greatly "improved" atomic bomb cannot be overestimated.* It has been predicted that in a full-fledged atomic war waged against the United States 40,000,000 people would be killed during the first 24 hours, and most of our centers of population would be destroyed.[6] Killing and destruction will be easy and cheap with the A-bomb. Talk of "winning" an atomic war with 40,000,000 to 60,000,000 civilians dead is utterly meaningless. Yes, we have the bombs to retaliate if such a fate should overtake us. U-235 from Oak Ridge and plutonium from Hanford are regularly shipped to Los Alamos where A-bombs are assembled under the direction of the University of California under government contract. The A-bomb has introduced an era of almost universal cumulative anxiety fed by fear and bound to lead to war unless alleviated. Wars are not caused by greed alone. Fear and the accumulation of intolerable uncertainty can drive a nation to choose war as the lesser of two evils.

The problem of the A-bomb and war must be solved if the new world is to outgrow its infancy. Many hard choices lie ahead for all nations, for it is exceedingly dangerous to temporize on crucial problems in an Atomic Age. The alternatives to war are becoming clear. Some form of international control of atomic energy and its development is plainly indicated, but there is at the moment no assurance that this alternative will win out.[7]

Associated with and to a certain extent maintained by threats of war and the A-bomb is the growing world tendency to build "iron curtains" between and within the nations. It may be that in America some secrecy is needed at the moment for national security. But everyone should be clear as to the dangers of censorship, for it is like a creeping paralysis, hard to control and difficult to stop, once it starts to spread throughout civilian life. Official peacetime secrecy and censorship are rather new in our democracy. They currently center on the control of the flow of ideas and information concerning atomic energy and its development. And this is what makes it so dangerous. Atomic secrets are hard to keep, for atomic energy touches many phases of living. Its effective development involves workers in all the natural sciences and in many of the social sciences. Democracy is based on free discussion and free access to information. So are the natural and social sciences. Democratic institutions and freedoms are acutely allergic to all forms of censorship, even in wartime, and the best way to choke off scientific developments is to compartmentalize the activities of scientists and restrict the free flow of ideas and information. The maintenance of secrecy in the development of nuclear energy poses a real problem for democracy and for science. The problem is complicated by the military and the world situation. It probably cannot be solved entirely on a national basis. This is as true for Russia as for America. In the meanwhile every citizen should critically examine any move to extend censorship and any move to create new areas of secrecy. The new world cannot develop under a cloak of secrecy and censorship.

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[5] John Hersey's *Hiroshima* (A. A. Knopf, 1946) should be on everyone's required reading list.

[6] See Phillip Morrison, "If the Bomb Gets Out of Hand," *One World or None.* (Masters and Way, Editors) New York: McGraw-Hill, 1946.

[7] See Bernard Brodie, "The Atomic Dilemma"; Herbert Briggs, "World Government and the Control of Atomic Energy"; Arthur Bromage, "Total War and the Preservation of Democracy," in *The Annals of the American Academy of Political and Social Science,* January, 1946. See also Ernest Oppenheimer, "The Challenge of Our Time," *Bulletin of the Atomic Scientists,* December 1947.

A third and perhaps the basic hazard is ignorance. This point need not be elaborated, for all of us are familiar with this old enemy of democracy. Ignorance of course may stem from censorship. Attempts to maintain secrecy always create more ignorance and often in areas where need for understanding is critical. Ignorance is the root of much evil in political and economic life and in human relations. It is a fundamental factor in war, perhaps the basic factor. The exploitation of ignorance for selfish purposes is always an important element in maintaining it. One wonders, for example, whether the modern radio is an instrument for public enlightenment or for creating and exploiting ignorance. Regardless of what the nature of ignorance is or where it is found, it can be eliminated only through education. This places a heavy responsibility on the schools and other public educational agencies. It should cause us to examine critically the mass media of communication and their effect on public enlightenment. It should cause us to examine critically our schools, our provisions for adult education. One fact seems clear: the major task of education during the next five years is to eradicate ignorance as completely as is humanly possible. No nation can be secure in an Atomic Age if ignorance is rampant among its citizens.

THE IMMEDIATE TASKS OF THE SCHOOL

The picture of the new world as it might be and the hazards that may block its development pose a difficult task for the school and all other educational agencies. They pose a difficult problem for each citizen too, for to a large degree self-education must fill the gaps left by formal schooling. It is clear that in the long pull the school cannot discharge its social function in the Atomic Age without major reconstruction. But time is short, and there is much that the American school can do now toward building the new world and the mature personalities needed to ensure man's continuance on earth. New directions in education, particularly science education, have been described in the other articles in this issue. The emphasis on general education and on new uses of learning tools is noteworthy. It is in this area of general education that the school can make a major contribution now.

The first and most important immediate task of the school is to take its part in a community-wide effort to reduce ignorance in the critical areas where lack of information and understanding on the part of the citizen can spell disaster. Without question the critical areas today are atomic energy and human relations. These two areas are interrelated; and unless we can reduce raw ignorance that prevails in both there will be little hope for the future.

The second task of the school and community leaders is to develop a methodology for the reduction of ignorance which will not only make the informational job more effective, but will also contribute to the development of democratic skills and attitudes without which the information secured would be of little value to the democratic citizen in an Atomic Age. This means developing the group process to a high degree and replacing the traditional information-imparting techniques with modern group discussion methods and group action. It means developing functional information in a problem-solving situation where skills and attitudes in problem solving are acquired along with the information. The school and its community have long been concerned with skills, particularly with the so-called fundamental skills. While undoubtedly many of these skills will be needed in the Atomic Age, there will be a critical need for a vastly increased range of skills by the citizen in the new world. A wide range of skills in human relations will be of paramount importance. Skill in cooperating and planning, skill in evaluating information, skill in group discussions and in the give and take of group work, and a host of social skills needed in everyday life will be of the greatest importance in the new world.

The third task of the school and its community is the deliberate development of democratic attitudes and values. Values associated with democratic living will take on new meaning and new urgency in the Atomic Age. Genuine respect for all people, regardless of their race, color, creed or geographical location, is essential for the continuance and full development of the Atomic Age. Constructive attitudes toward cooperation and participation in the solving of important public problems need to be developed by all citizens as quickly as possible. Many traditional values will have to be reconstructed. All forms of narrow provincialism must be given up. Each school and each community must work for acceptance of the principle of the brotherhood of man. They must work to help everyone acquire a willingness and an ability to reconstruct his attitudes and values in the light of current knowledge concerning the nature of man and the world as revealed by science.

The fourth task of the school and the community is to reveal to its young people the nature of the work world in the Atomic Age. The chances are that as many as one in every five workers will be employed in some phase of atomic energy development in the near future. This unprecedented demand and need for new skills and new abilities is far from being met today. In fact, the rapid development of atomic energy is being blocked at present by the lack of trained manpower. Most of the needed trained manpower for atomic energy development will have to be recruited from the ranks of the young people now in our high schools. This task of discovering and releasing latent abilities needed in atomic research and development cannot be delayed. In a very real sense, the future of the Atomic Age hinges in the last analysis upon our ability to train sufficient manpower to meet the evolving needs of the new world. This job, of course, the school must undertake in addition to general education for every citizen or potential citizen.

The tasks outlined above may seem formidable. In truth, they represent only a part of the educational job that must be done in the near future. But school people and community leaders can take heart from the fact that already many schools and communities have begun work on these problems. Last fall an outstanding example of county-wide community cooperation on atomic energy was demonstrated in Prince George's County, Maryland.[8] Sparked by the local League of Women Voters, seventy-one organizations participated in an Atomic Energy Week. A similar project was carried through in Stamford, Connecticut. The atomic education program sponsored and developed by the Oak Ridge, Tennessee, High School is well known. White Plains, New York, High School, currently has a broad atomic energy program under way. The National Association of Secondary School Principals will inaugurate a comprehensive education program focused on school and community atomic education.[9] This nation-wide project has been named "Operation Atomic Vision," and it is hoped that it will stimulate every high school in the country to raise its own informational level and that of its community. Concerning atomic energy and related problems, the Department of Education at the University of Illinois has prepared and published a unit on atomic education for schools,[10] and this spring the Bureau of Publications at Teachers College will release a resource unit and a discussion leader's guide on the challenge of atomic energy.[11] A variety of reading materials can be obtained from the National Committee on Atomic Information, either free or at a low price.[12] Films and film-strips are also available from this organization.

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[8] For a brief account of the Prince George's County experiment, see the December, 1947 issue of *Atomic Information*, published by the National Committee on Atomic Information, 1749 L St., N. W., Washington 6, D. C.

[9] For further information, write to Dr. Paul Elicker, Executive Secretary, National Association of Secondary School Principals, 1201 Sixteenth St., N. W., Washington 6, D. C.

[10] Write to Professor Harold C. Hand, Department of Education, University of Illinois, Urbana, Illinois, for information about this unit.

[11] Ryland W. Crary, Hubert M. Evans, Albert Gotlieb, and Israel Light, *The Challenge of Atomic Energy*, A Resource Unit and Discussion Leader's Guide. New York: Bureau of Publications, Teachers College. In press.

[12] National Committee on Atomic Information, 1749 L St., N. W., Washington 6, D. C.

These are but a few examples of resources that can be tapped by any school or community that attempts to discharge the tasks outlined above.

So far in this issue little has been said in particular about science education and the science teacher. It goes without saying that science education and the science teacher are crucial factors in a situation where a school and its community attempt to discharge their educational responsibilities in the Atomic Age. Of course the science teacher will take a part, and in some instances a leading part, in helping the school and its community to develop an adequate educational program for the new world. But it should be emphasized that it is also an equal responsibility of all teachers and all community leaders and all those interested in education; in the last analysis it comes down to every single individual in the community. Not only must he assume considerable responsibility for his own re-education, but he must take active part in helping others to do likewise.

Schools everywhere must undertake quickly their share in the task of building the understandings, skills, and attitudes needed in the new world. Atomic energy is everybody's business. To adopt any other attitude is to court disaster.

Implications for Senior High School Courses in Physical Science

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GIVEN general agreement regarding the motives of education, what would be the next steps? For the purposes of this discussion, let us assume this agreement and take for granted a general acceptance of the viewpoint that "man's conceptions of values, of society, and of the world and man are each part of the integrated whole that makes up his pattern of thought." Working for improvement in the ability of people generally to apply the scientific method in this universe of thought toward the resolution of life's important issues and problems will be considered the chief function of education. Our intent is to discover, if we can, what the effects of this philosophy should be upon practice in the science areas now served by the chemistry, physics, and physical science courses of the senior high school.

The gap between the realization of what should be happening in education and the working out of efficient methods of actually making it happen frequently turns out to be a difficult one to bridge. How long, for example, have science educators given priority in their lists of objectives to those areas relating to the scientific method? Surely it is agreed that dissection of this method into formal steps to be memorized by students has been a rather feeble device in so far as promoting the use of scientific method procedures is concerned. While we have progressed beyond this and have attempted to devise methods that give children practice in the solving of real problems and that help to develop needed abilities, we certainly are not satisfied that our practices are adequate. And so we must realize that the path toward the realization of the goal discussed earlier in this issue (page 380) is likely to be an arduous one.

Since the statement of philosophy which we are considering represents growth in our thinking rather than revolution, it should not be assumed that all is amiss with present practice. Too often those urging curriculum revision have implied or even stated bluntly that almost everything now being done by most teachers is just plain bad. However well-intentioned such statements may be, the resulting feeling of inadequacy which they engender in teachers and other workers in the field leaves no basis upon which to build. Perhaps in the past there has been too great a tendency for leaders in educational philosophy to leave the rest of the job to the practitioner and vice versa—too much either/or and too little both/and. At any rate, teachers often find themselves in the anomalous situation in which what they believe is belied by what they do. Those who have worked with teachers are aware of their real desire for the kind of help that enables them to resolve their inconsistencies and to gain confidence and satisfaction from teaching.

IMPLICATIONS FOR ORGANIZATION

The struggle between topical or subject-matter approach and the problem approach has been going on for years. Most but not all of our present chemistry and physics organization is in terms of the former type. This type of organization for chemistry and physics harks back to the latter years of the past century, when colleges provided lists of topics as recommendations for subject-matter coverage in the chemistry and physics courses. As educators have come to realize more clearly that the subject matter of science is really accessory to its method, the topical organization has to some extent given way. There is now general agreement that science itself is in essence a method of solving problems. Logically, the organization indicated is a problem organization.

Has this point of view had any effect upon the traditional courses under consideration? The answer is, to a limited extent, yes. The light unit, for example, in a recent physics text is organized around the following questions: How do we see?, How can we provide proper illumination?, How do we control light?, How do we produce and use radiations related to light? Such organization seems to be more in line with the problem-solving nature of science than does the subject-matter coverage of the light area under such topics as The Nature and Velocity of Light, The Reflection of Light, The Refraction of Light, Optical Instruments, and Light and Color. Even the latter organization represents to some extent an advance over one which stresses the minutiae of science without fitting them into a more general picture. Psychologically, one of the soundest principles underlying organization of curricular materials pertains to relatedness of the parts. Too often, relatedness is sacrificed to repetition as the guiding principle. As a result, continuity within courses is often at a minimum.

The philosophy being examined here goes beyond committing itself to a problem organization. The gist of it is: Practice in selecting and in using ideas consistent with experience and in recognizing and rejecting ideas inconsistent with experience *as the student deals with his own issues and problems* would seem to be most fruitful educational experience. As teachers, we will be more concerned with education that will improve the living of people, with understanding of critical social issues, with the personal problems of children and youth, friendships, growth and development, ways of looking at life, with problems of sufficient breadth to be considered representative of life situations.

If we agree that problem organization is the most desirable type, there still remains the question, Which problems out of the many? Value judgments must be made at this point. If we accept criteria such as those quoted above our organization must certainly go beyond so-called pure science considerations.

Perhaps an illustration will serve to reveal the adequacies and inadequacies of present course organizations relative to this educational point of view. Because it historically ties in with the early development of the science, the early portions of the high school chemistry course commonly deal with the role of oxygen in burning. The nature of combustion is treated at length. However, in order to learn about the nature of fuels which he is using at home or at school in his chemistry course, the student would in most cases have to turn to the latter chapters of his text, where this information is likely to be given in a section dealing with organic chemistry. Common fire extinguishers are likely to be discussed in various portions of the text in connection with such items as baking soda, sulfuric acid, oxides of carbon, and so on. Relatively little is likely to be found concerning conservation. For information about the use of fuels in heat engines or other use of heat to accomplish work, or about methods of controlling heat transference in home heating, the student must look beyond the bounds of the chemistry course. Some of this information but not all of it can be found in the physics course. Although a problem organization can bring a certain degree of unity within the chemistry and physics courses, the traditional subject-matter limits of these courses restrict the types of problems that can be treated and consequently neither course can deal adequately with problems which are comparable in breadth with problems arising in real life situations. The latter have no subject-matter boundaries. Problem organization, however, when adopted in chemistry and physics courses does represent improvement although not the ideal solution.

THE PHYSICAL SCIENCE COURSE

The general physical science course which has grown up alongside the traditional courses in physical science is by its nature better adapted to the accomplishment of the motives under discussion. This is largely the result of freedom from subject-matter boundaries. An examination of texts and course materials prepared for these courses reveals that this natural advantage is not being seized upon and exploited. Most of the available course materials that have appeared for use in this course show rather sharp divisions into discrete chemistry, physics, astronomy, and geology sections. Perhaps we should be encouraged by the realization that the trend does seem to be toward a more functional course. Where a socially-minded problem organization has been set up for this course, certain criticisms have been heard, a common one being the charge that the course outline reveals the inclusion of too little chemistry or that there is too much physics, and the like. In answer to this criticism one might ask, "Too little by what criterion?" While such criticism may sometimes be valid, it seems likely that those offering it may be finding it difficult to appraise the new course except by comparison with the traditional courses. They forget or fail to realize that the physical science course really represents a quite different approach to education.

Let us return to the example from the area of heat, which we have already used in connection with the physics and chemistry courses. In the physical science course, heat might well be considered under the general heading, Energy Resources Available to Man. In this area some examples of issues and problems suitable for investigation in connection with fuels include:

What is burning?
How do we promote burning?
How do we control and prevent destructive fires?
What are our common fuels?
Why are our nation and other nations suffering from fuel shortages?
What can individuals do to help conserve fuels?
What sources of heat have we now besides fuels?
How long will the world's fuel supply last?
Will man necessarily suffer more acutely in the future from a shortage of fuels?

It is obvious that while the above listing makes no attempt to be comprehensive, enough has been included to indicate that there is no deference to subject-matter boundaries, no lack of social implications, and no lack of points at which value judgments will be in order.

While the growth of the physical science course has been slowed somewhat by the emphasis placed upon early specialization by wartime emergency, present indications are that its growth is beginning to accelerate. Colleges have indicated willingness to accept the physical science course in lieu of chemistry and physics for college admission purposes.[1] Indeed, in some instances they have stated their opinion that the physical science course is superior to the two separate courses for the accomplishment of the objectives that they envision for high school instruction in physical science.[2] This is quite natural, in view of the fact that the colleges are themselves setting up the physical science type of course to replace more highly specialized science courses in the early college years. The avowed aim of these new courses is to provide the student with experiences that will prove more beneficial both to him and to society.

A final word of warning relative to organization seems to be in order. There are those who will ask, "Is the new approach psychologically sound?"

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[1] Robert H. Carleton, "The Acceptability of Physical Science as a College Entrance Unit," *Science Education*, xxx (April, 1946), pp. 127-32.

[2] "Report of the Harvard Committee," *General Education in a Free Society*. Cambridge, Massachusetts: Harvard University Press, 1945.

This question has been treated extensively in a fairly recent yearbook[3] devoted to psychology. There the systematic subject-matter approach finds some favor because it is a well thought-out plan which leads on to higher levels of achievement. It does have a longitudinal scheme of development. Years of thinking by subject-matter specialists and specialists in education have contributed this strong point. Indeed, we must realize that these so-called systematic courses in subject matter may well have a rightful place in the education scheme, but at a higher level than the one we are discussing. In the yearbook cited George W. Hartmann says:

> Project learning and systematic course learning are not irreconcilable antimonies but appropriate to different levels of maturity in the content involved. . . . Orientation, general education, and survey courses harmonize best with the nature of early mental development, but specialized courses are justified when growth has proceeded sufficiently via differentiation.[4]

G. T. Buswell writes as follows:

> At least two generalizations of psychology are of sufficient breadth and importance to furnish an initial working basis. First a curriculum must be such that it will motivate vigorous, active, "doing" responses from the learner. Second, a curriculum must so emphasize organization that the successive experiences of the learner will be continuously related and interrelated into larger and more significant patterns—into increasing hierarchies of understanding. Responses must not be left as isolated entities. . . . This two-factor plan of curriculum development would serve several purposes. It would preserve the advantages of both systematic organization of content and excellent motivation through life situations. . . . The general longitudinal organization and content must obviously be formulated by those who are mature enough to see the place of an organized framework and whose education has made them competent in their various fields. It is the job of experts. On the other hand, formulation of suitable project or activity units can be done only through cooperation with pupils, at the appropriate level, so that the projects finally formulated will be actually motivating.[5]

Many who have been responsible for the organization of the newer courses have seemed to consider systematic organization undesirable—perhaps because subject-matter courses have it. This is a mistake. Systematic organization of problems is necessary not only to gear them properly to the maturity level of the learner but also to guarantee comprehensiveness of learning and progress toward "increasing hierarchies of essential understanding." These characteristics are also desirable in the newer organizations if the latter are to serve efficiently the needs of the individual and of society. To achieve this characteristic in the physical science course will require time, hard work, and patience.

ROLE OF SUBJECT MATTER

There is no reason to shy away from the use of the term subject matter.

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[3] National Society for the Study of Education, "The Psychology of Learning," *Forty-first Yearbook*, Part II. Distributed by the University of Chicago Press, 1942.

[4] *Ibid.*, p. 207.

[5] *Ibid.*, pp. 454, 457.

Any education worthy of the name will find content indispensable. Those who have decried compartmentalization of subject matter and subject matter per se have sometimes given the impression that they were really campaigning to do away with course content. Such, of course, is not really the case. To gain emphasis, promoters of a new idea sometimes tend to go to extremes.

It is true that a physical science course based on real life problems will find no use for some of the subject matter now included in chemistry and physics courses. However, it will find use for much of it and also for much that is not included in these courses. It is interesting to note how physics and chemistry textbooks increase in size as new subject matter appears. Today, the physics course is having to add elementary meteorology and aerodynamics besides such additions to its electronic section as television, radar, atomic fission and fusion, and so on. Chemistry courses are adding to their chapters on the structure of matter, plastics, and consumer chemistry. Yet those in favor of the older type of curricular organization hesitate to drop any of the old subject matter.

The development of a problem approach even to the extent that is possible within subject-matter boundaries would be a partial answer to this vexing situation. It would automatically make it clear that some of the present subject matter serves no real purpose and should be dropped. Moreover, the development of the limited type of problem organization that is possible in these courses is recommended as a forward step which can be accomplished now where certain arbitrary limitations make it advisable or necessary to retain chemistry and physics as such.

In addition to the wider scope of subject matter used in the physical science course, a big difference between the two types of courses lies in the way in which subject matter is likely to be used. In the subject-organized course the subject matter is introduced for itself, as an end; whereas, in the course broad enough to deal with life situations, the subject matter is selected and used because it is needed for the solution of a problem or the resolution of an issue. Obviously, the subject matter of the latter course must include materials commonly classified as social science content. Real life situations are not likely to fall entirely within the realm of the so-called pure sciences. In general, however, problem solving within the physical science course can be expected to deal with problems rooted to a large extent in a scientific background.

IMPLICATIONS FOR METHOD

Sad to say, we are not so adept as we should like to be at using the scientific method in teaching situations. In a recent yearbook Craig[6] has discussed the utilization of the scientific method in developing procedures for instruction at the elementary school level. What he says is as applicable to secondary school science instruction as it is to the lower level, and a careful consideration of this analysis is recommended. No doubt much of our difficulty relative to method stems from the necessity of meeting the student where he now is. There is great variability among our students. But, as Craig points out, we must be alert to the kinds of questions that children ask and to natural approaches to scientific method teaching. Teachers must become convinced that even their less able students do have a degree of ability to hypothesize, draw conclusions, and check conclusions to see if they are consistent with experience. Furthermore, to be really effective, teachers need to believe that these abilities of children can be improved. However slow the process, and however little the gain in some students, the results will prove exceedingly important. We must remember that any increase in these abilities will be operative for the remaining lifetime of those helped. There is need for large-scale research aimed at developing techniques and materials in this area.

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[6] Gerald S. Craig, "Materials and Methods of Teaching Science in the Elementary School," pp. 93-95, in "Science Education in American Schools." *Forty-sixth Yearbook* of the National Society for the Study of Education, Part I. Distributed by the University of Chicago Press, 1947.

It is interesting to note that we seem to do better at present with helping students to recognize problems and to observe carefully than with the ability to reason, to analyze, and see relationships.[7] Certainly these abilities are all necessary for successful problem solving by the scientific method. Some claim that we need a breakdown of these latter abilities into more specific abilities, such as ability to apply facts, principles and other generalizations, ability to interpret a set of data and to recognize its limitations. When these are stated in specific form, teachers can develop materials for exercising these abilities and stress these particular items as they appear in problems and issues under consideration. Some suggestions[8] have grown out of experimentation in which attempts have been made to improve abilities needed in problem solving. While specific exercises of the kind recommended stimulate thinking and exercise these abilities, they are not a complete answer. The full answer lies in carrying through the solution of real problems. Unwise use of scientific method exercises can degenerate into just another kind of subject matter for the sake of maintaining itself rather than its use as a means to an end.

Teachers need help with their laboratory teaching. How to put the secondary school laboratories on a real problem-solving basis and keep them there remains in large measure an unsolved educational problem. Obviously, problem solving is ideally done on an individual or small group basis. To minister to a hundred or more pupils at work on various problems is no simple task even for a teacher with imagination, skill, and abundant energy. Again some partial answers have been found and a search through the educational literature does bring some reward.[9] There is great need of suggestive curricular materials and evaluative devices designed to help teachers promote and measure pupil growth in all of the course objectives and not in just one or two of them.

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[7] Sam Strauss, "Some Results of the Test of Scientific Thinking," *Science Education*, XVI, December, 1931, pp. 89-93.

[8] For examples see: B. C. Hendricks, R. W. Tyler, and F. P. Frutchey, "Testing Ability to Apply Chemical Principles," *Journal of Chemical Education*, XI, November, 1934, pp. 611-13.

United States Armed Forces Institute. *Examination in Chemistry: High School Level.* New York: American Council on Education, 1944.

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[9] For examples see: Ralph E. Horton, *Measurable Outcomes of Individual Laboratory Work in High School Chemistry*. Contributions to Education, No. 303. Bureau of Publications, Teachers College, Columbia University, 1928.

H. I. Schlesinger, "The Contributions of Laboratory Work to General Education," *Journal of Chemical Education*, XII, November, 1935, pp. 524-28.

Purpose in Laboratory Experiences

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THE laboratory method came into teaching through the physical sciences, with the central technique the experiment with apparatus and materials. Germany pioneered through the work of such men as Francke at the University of Halle in 1695 and Hecker in the *Realschule* of Berlin in 1747. At first the teaching was by demonstration, performed by the professor. Laboratory work was performed by students under Liebig at Giessen in 1826. In the middle of the century the *Realschulen* included in the curriculum physics, chemistry, mineralogy, and physical geography, with laboratory work as part of the instruction. The focus of attention was on the use of scientific materials in industry. In the United States, laboratory experiments were performed by students in the universities after 1850. Near the close of the century this method was adopted by the high schools. Dewey's work, *The School and Society*, was published in 1896. Its philosophy of "We learn to do by doing" gave impetus to the laboratory method.

The laboratory method as a concept has been used freely. It has been applied to any work involving observation. Various adaptations are used in the social sciences, mathematics, and vocational and commercial subjects.

Prior to the introduction of the laboratory method, students learned by reading and listening. Determining the solution to a problem commonly meant finding it in a book. In the laboratory method, materials in question were manipulated and observed. Firsthand experiences answered many questions which verbal descriptions did not, and resulted in more definite associations between materials and concepts.

Introduction of the formal laboratory into the school organization was not the beginning of laboratory experience as it must be defined for the general student or the average individual or citizen. Since man's origin all thinking people have functioned more or less on this basis of observation and determination of relationships. Such behavior was not limited to scholars, philosophers, and teachers. In fact, the experimenters often were people at random who, in the solution of personal problems, had proved the value of a deliberative, reflective approach in dealing with reality as a coherent structure.

The purposes of the laboratory experience, and the direct and concomitant outcomes have been the subject of many statements since its recognition as worth-while experience in education. Certain outcomes have been shown to occur, while others have been assumed though not actually demonstrated. There are two basic types of behavior in the laboratory experience. First, there is direct observation of characteristics, which produces a mental picture and verbal concept; second, there is opportunity to manipulate materials and observe reactions as related factors vary.

Accurate observations and conclusions consistent with reality are the aim, though methods employed have limitations. With observational data, relationships may be determined and questions answered. The scientific method of problem solving is difficult to define and is often weakened by stepwise outlines. But the individual experiences it as he concisely defines a problem, sets up an experimental situation involving pertinent materials, recognizes constants and variables as factors involved, records observations with cognizance of degree of accuracy, and determines an answer on the basis of data and legitimate inferences therefrom. The essence of the scientific method—the thinking process which characterizes it—can be experienced in a comparatively simple situation. For the individual, it is a thought pattern consistent with recognized facts. The central outcome is a recognition that the method is a useful one, in that it can be subsequently applied to other situations. There are certain training values which may be assumed to be developed, such as self-direction, reflective thinking, and clarification of concept.

Laboratory experiences cannot be superimposed upon an individual, nor can he be led into them by force. They occur only when the problem, observations, and solution are a part of the individual's life and have meaning for him. It is possible for him to be directed to perform an exercise which has no meaning in his value system.

The individual's life contains many problem situations and in his thinking many questions are raised, an appreciable number of which can be approached for clarification and solution through laboratory experience.

There is little significance in a definition of a laboratory in terms of four walls and contained equipment. The laboratory is the material environment of the individual. Experiences may involve detached sectors of the environment, but meaning is lost or distorted if the life context is not recognized.

Among the most important factors in the environment of the individual are other individuals. Problems of mutual import should involve the group in a cooperative laboratory experience.

The long-range outcome is a coherent picture of the material world and man's relationship to it, plus an understanding of the process whereby such a picture is attained.

There are concrete implications in the foregoing for the function and responsibilities of the teacher. The teacher cannot dictate real problems. To be real, they must come from the life and thinking of the student. It is difficult to tell students problems which need solution, and then try to produce a vigorous and meaningful response. The preplanned exercises of laboratory work come up for serious questioning.

The range of problems in a class is broad, as is also the need for resolving experiences. The limitations of the very specialized teacher are evident. The teacher must explore with his students, often functioning in new areas. To him, too, the process is uppermost in importance. He cannot dictate an elaborate and foolproof process, but must work from the students' level of understanding through the elements of the process, each performing its function—the total a meaningful structure.

In group work the teacher is a fellow member of the cooperative approach. He is not one who knows the right answer and waits for it. The teacher cannot be disregarded as an adviser and guide, but his verbal expression should never be beyond the range of the students' thinking.

Materials from the environment are utilized. The conventional equipment of the laboratory may appear strange and the response to it weak, but materials readily recognized as of significance in daily living are associated with personal and group quesions. There are instances when it may be of benefit to a class that no standard demonstration pieces are available, forcing the class and the teacher to go to the local situation for materials. Laboratory experiences can take place in the most crowded classroom with no standard equipment or laboratory manuals.

Meaningful laboratory experiences are not disconnected from other aspects of the student's life, but are one phase of a continuum of experience. Conventionally the laboratory work has been conducted separately from the recitation, and is often accepted as less theoretical and more exactly planned, requiring fewer immediate judgments. But the laboratory makes its contribution only when consciously integrated with other activities of the student's program.

The environment of the student is not composed of distinct sectors of scientific associations—of chemistry, physics, and biology. Questions occurring in his mind cut across the conventional fields of study. The laboratory approach must do the same.

The function of laboratory study in verification of basic principles is not discounted. It is simply placed in its most meaningful position by integration with problem situations real to the student. In laboratory work a rediscovery of the laws of nature has value in building a structure of interrelated concepts, but this structure, to be meaningful, must be part of contemporary life. The presentation of a situation is often the result of a search for illustrative material to clarify a principle. The meaningful sequence is for the principle to be used to clarify a situation.

With attention centered on the process the written report becomes supplementary. It seems difficult to justify the stereotyping of a report. To the student the required experience is complete when the blanks are full, and thus his aim is to arrive at the expected answer for each blank. Instead, the report should be a statement of experience. It should represent the individual's thinking, though guided to a certain extent by the teacher and available references. Only in this way can the teacher determine whether the experience has been coherent and the thinking in order.

For the specialized student the laboratory is a place for directed or supervised exploration and pressing on into new areas or deeper acquaintance with old. However, though specialized in one area and meeting personal needs there, he has certain of the more general life requirements which must be fulfilled. He continues as a cooperative member of the community of students, meeting with them problems of mutual interest.

Successful laboratory experiences can be had by the students of all levels of intelligence, provided we permit them to function from their own level. In addition, all students have unique contributions to make to the group in techniques and construction over a wide range and variety.

Much has been written regarding the benefits of the several mechanical aspects of laboratory practice and requirements, such as drawings, dissection, microscopes versus microprojectors, individual performance versus group performance, and so on. Such study is supplementary to the major purposes or principles for laboratory experience. Each mechanical method has its own unique contribution to make or facility to offer. The value of a technique depends upon the use the individual can make of it, coincident with his thinking. Nevertheless, the teacher does the individual a service by suggesting techniques which have been used and found valuable, but only as tools and not as ends in themselves.

The laboratory room or science classroom offers opportunity for attractive and functional organization of furniture and equipment. This can be the result of student activity. Long-range demonstrations, animal groups, and graphic reports should represent student work and encourage the individual in an expression of and a functional approach to his own questions.

The implementation of ideas expressed here is not easy. Reports involve pupil–teacher ratios, number of classes daily, dictated requirements, and syllabi provided by the school system. Nevertheless, attention to the thought process of the individual student as he or she deals with materials of the environment is primary in importance. The program of education which fails to place this at the center in the laboratory experience is missing the mark. Provision of a situation allowing such experience may involve adjustment of teachers' methods. It may conceivably demand a reorientation of administrative policy. The teaching and administrative staffs have the mutual responsibility of this provision for all individuals entrusted to them.

The Film in Science Education

WILLIAM BURNETT CROSS

LECTURER IN TEACHING OF NATURAL SCIENCES, TEACHERS COLLEGE

WHAT new help will the teachers of science demand from the audio-visual area as they work toward the objectives of science teaching in general education?

Teachers of science are by no means strangers in the field of audio-visual materials. The models, charts, films, slides, and other classroom devices available to us outnumber by a considerable amount the materials available to teachers in other areas. But if we are, in UNESCO's phrase, "to increase understanding of the social implications and functions of natural science" rather than merely attempt to supply youth with the impressive array of facts which the application of the methods of science has produced—and if we are to do this in terms of learning *experiences* explicitly connected with the immediate needs of youth as well as with future needs—then we must ask for audio-visual instruments and techniques of a somewhat different nature from those we have been accustomed to using.

We must ask, in fact, for teaching implements usable within the classroom which will communicate in terms of experience itself. We must ask, in effect, that on occasion a learning situation be transferred from outside the classroom into the classroom and reproduced as nearly as possible as a whole; reproduced so accessibly and intelligibly that the student will react to it as a whole individual.

This is a large order, but there is evidence to suggest that it is not an impossible one. In the light of our objectives and results so far in science education (on the popular level, not the academic one), and the urgency of the social situation, we cannot ask for anything less.

Potentially, and to a certain extent demonstrably, the medium of the motion picture film can answer these demands, and answer them to a degree not achieved by other audio-visual media. "It is an astonishing fact, specific to the cinema, that most (sic) distinct from any other form of art or reproduction, it conveys an illusion of reality to the spectator."[1] This capacity of the film to create an illusion of reality (and that is to say an illusion of experience) is well known. Interesting experimental evidence on this point is to be found in Rome's account of the U. S. Navy's use for therapeutic purposes of specially produced films designed to "provoke an emotional reliving of experience" originally acquired by men in combat.[2]

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[1] H. H. Wollenberg, "Exploring the Psychology of the Cinema." *Sight and Sound*, Vol. 15, No. 59, Autumn 1946, pp. 99-101. London, England: The British Film Institute.

The accessibility of the film's visual imagery is common knowledge; the popularity of the Hollywood product demonstrates this, whatever else it may signify. The film communicates in a language which seems to call for a minimum of prerequisite training. The reasons for this accessibility are not yet clearly understood; one provocative hypothesis[3] points out similarities between image presentation in dreams and motion picture camera technique and suggests, in effect, that we comprehend the film language so well because we dream. However that may be, the phenomenon of accessibility remains.

That the essential language of the film is readily understood is of course no guarantee that its message will be comprehended; but the film has had remarkable success in intelligibly presenting fairly complex situations not so easily expressed in other media. *The World Is Rich*,[4] a film about the world's food, is a recent example of successful treatment in film terms of a subject that in any other terms becomes heavy going for lay audiences.

But above all it is the film's capacity to provoke its audience into undergoing a personal and individual experience, with many of the psychosomatic concomitants of experience, that marks it as an instrument for our educational purposes. If we are to teach within the science classroom (where for one reason or another we seem likely to remain tethered for some time to come) in terms of experience outside the classroom, then surely this is the medium we must exploit to the full. As Grierson has put it, "In film . . . we have an instrument much more suited to the specific purposes of education than any other of the arts. It really can bring the outside world alive to the growing citizen. It really can extend his experience. It really can serve an interpretative function. Working as it does from the living fact, it can, if it is mastered and organized, provide this necessary umbilical to the community outside."[5]

Films fulfilling these functions do exist;[6] for example, *The River*, *The Plow That Broke the Plains*, *Power and the Land*, in documentary terms;

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[2] Howard P. Rome, "Motion Pictures as a Medium of Education." *Mental Hygiene*, Vol. XXX, No. 1, pp. 9-20. Albany, N. Y.: The National Committee for Mental Hygiene, Inc.

[3] Angelo Montani and Giulio Pietranera, "First Contribution to the Psychoanalysis and Aesthetics of Motion Picture." *Psychoanalytical Review*, Vol. 33, No. 2, April 1946, pp. 177-96.

[4] *The World Is Rich*. Produced by Films of Fact, Ltd., for COI, 1947; directed by Paul Rotha; available through British Information Service, New York City.

[5] John Grierson, *Grierson on Documentary*, pp. 154-55. New York: Harcourt, Brace and Company, 1947.

[6] *The River*. Produced by the Farm Security Administration, 1937; written and directed by Pare Lorentz; music by Virgil Thomson.

The Plow That Broke the Plains. Produced by the United States Resettlement Administration, 1936; written and directed by Pare Lorentz; music by Virgil Thomson.

Power and the Land. Produced by the Rural Electrification Administration and the Department of Agriculture, 1940; directed by Joris Ivens.

Boundary Lines. Produced by International Film Foundation, Inc., New York City, 1947.

One World or None. Produced by the National Committee on Atomic Information, Washington, D. C., 1946.

and *Boundary Lines* and *One World or None*, in terms quite different from the realistic documentary ones but none the less effective, experiential, and useful in the classroom. Yet these films have considerable difficulty in gaining entrance to the science classroom, for reasons to be discussed.

If this estimate of the potential usefulness of the film in science education is reasonably correct, the present state of the film in the science classroom and the direction or directions in which it seems to be moving are not altogether satisfactory. There are perhaps three factors in particular affecting the situation: the traditional "educational film," the position of the science teacher with respect to films, and the position of the educational film producer.

Although a comparative newcomer to the educational scene, the educational film is already possessed of a well-established tradition. In common parlance "educational film" and "instructional film" are interchangeable expressions. It follows at once from this proposition, whose origin in the traditional type of science curriclum is quite discernible, that if a film cannot be described as instructional, it cannot be educational. Even in instances where the traditional science curriculum has been displaced, the definition of educational film and educational film usage which it engendered persists with unmitigated effect; the effect is, particularly in the present flux of science education, an obstructive one.

This must not be taken as condemnation of instructional films as such. These films, visualizing the theoretical motion of electrons, say, or making the microscope field of view visible to an entire class at once, demonstrably serve (and in many instances serve well) felt needs in the science classroom. It is to be taken, on the contrary, as an attack upon the fallacious traditional proposition to the effect that the only films that can legitimately enter the science classroom are those plainly "instructional" in content and intent, which proposition stands directly in the way of the most effective use of films.

The position of the classroom teacher with respect to films is not an invidious one. If he is able to afford the luxury of a conscience (unlike Eliza's father in *Pygmalion*), he occupies an unstable point somewhere between the obviously unsatisfactory science curricula of the past and the uncertain shape of things to come. Uncertain in this flux of his educational objectives in general, it is hardly remarkable that he is not too clear about the functions of the films in particular.

If he is interested, however, in the possibilities of films—and it is amazing how many teachers are—he is wittingly or unwittingly fettered in any efforts he may make by the traditional "educational film" incubus. This difficulty may be enhanced by his subscribing, wittingly or unwittingly again, to the popular superstition that science is unemotional, from which it follows that films having an emotional aspect (and what experience does not?) most particularly may not enter the emotionally astringent atmosphere of the science classroom.

If he wins his way past these obstacles, and through various difficulties that film distribution puts in his path, he soon becomes aware of a really serious impediment. This is the fact that almost everything remains to be known about the techniques of choosing, using, and evaluating films in the classroom as total experiences rather than instructional "aids." This ignorance is compounded by his own lack of facilities and time for viewing films, outside the limits of the two or three staple items he may use, and empirically finding out for himself some of this desirable information.

The average teacher's lack of conviction as to the real value of the film in the science classroom, of course, causes school administrators and curriculum designers to hesitate about putting much faith or money into equipment which is notoriously expensive, reputedly temperamental, and operationally demanding.

The position of the producer of educational films is equally unhappy. He scans the present state of science education and attempts to peer into its future, wondering what may be implied for educational film production. Plainly there is and will continue to be a demand for the instructional type of film, which has by no means reached the peak of its development. But demands for other kinds of educational films seem to be arising, and the producer is torn between the desire to take advantage of opportunity and the fear of "getting ahead of the market," which the high cost of film production renders an expensive and occasionally fatal error. In view of the fact that no absolutely foolproof formula for producing even the common instructional film seems to have been devised, the producer must move in a very gingerly fashion. He feels too, and not without justification, that teachers do not appreciate the difficulties he labors under, especially those of a financial nature, and that teachers are prone to dismiss in a very off-hand manner a film which he may feel could not be bettered under the existing circumstances. He even reports that his efforts to make his product more acceptable by securing educational advisers can bring him into favor in one quarter but into disfavor in another, a contretemps he cannot afford, considering the present tender condition of the educational film market.

What is needed to make up this discrepancy between where we are in the use of the film in the science classroom and where we want to be? The following suggestions are offered.

1. Understanding of the nature of the film experience and of the psychology of the film learning situation.

2. Direct application of this understanding to the teacher's problems in the science classroom, in terms of techniques for choosing, using and evaluating a film.

3. Opportunities for science teachers to see and discuss films useful in the science classroom, in the schools as well as in teacher-training institutions.

4. Better liaison and direct commu-

nication between teachers and educational film producers.

Given progress along these lines we can reasonably look forward to increasingly effective use of the film for achieving the objectives of science in general education, for the film is perhaps the most potent single educational instrument available in the classroom today.

Departmental Notes

Division I

Foundations of Education

SOCIAL AND PHILOSOPHICAL FOUNDATIONS

ONE hundred and fifty New York teachers in the Bronx heard Professor R. Freeman Butts conduct a discussion on "Administrative Policy and Human Relations" January 13 in the last of a series of 15 meetings held as a part of the in-service training courses for teachers sponsored by the assistant superintendents of the New York City Board of Education and the National Conference of Christians and Jews.

PSYCHOLOGICAL FOUNDATIONS AND EDUCATIONAL RESEARCH

FOR the *Handbook of Child Guidance,* edited by Dr. Ernest Harms and published by Child Care Publications, New York, Professor Percival M. Symonds has contributed a section on "Case Study and Test Methods."

Division II

Administration and Guidance

EDUCATIONAL ADMINISTRATION

PROFESSOR Will French has been granted a sabbatical leave of absence for the spring semester, and will visit high schools, junior colleges, and schools of education in the Midwest and on the West Coast, returning for the summer session at the College.

Courses in secondary school administration usually taught by Professor French will be under the supervision of Dr. Francis L. Bacon, who is on leave for this semester from his regular position as superintendent of the Evanston Township High Schools in Evanston, Ill. Dr. Bacon has long been active in the National Association of Secondary School Principals, has served as its president and on the Educational Policies Commission, and is now chairman of the Association's planning committee.

FISCAL *Policy for Public Education in the State of New York,* a study directed by Professor Paul R. Mort, with Professor John K. Norton as consultant, for the joint committee of the New York State Educational Conference Board and the Public Education Association of New York City, is the basis for the Young-Milmoe State Aid Bill introduced in the New York Legislature. The bill provides a plan to increase state aid for education from $150 million to $250 million a year.

DURING January and early February, Professor Mort spoke on state fiscal policy in Mount Vernon, under the auspices of the local Teachers Association; in Hempstead, under the sponsorship of the Nassau County Educational Organization, and in New York City, at a meeting of the Public Education Association.

GUIDANCE

TRAINING facilities in the personnel field was the subject of a meeting of the New York Vocational Guidance Association January 8 in Manhattan's P. S. 47, at which Professor Donald Super was a speaker.

PROFESSOR Harry D. Kitson attended a meeting of the committee on training and certification of counselors of the NVGA in Philadelphia February 13 and 14. This committee is preparing a report on the training of vocational counselors.

AT the January meeting of the Teachers College branch of the NVGA, George C. Hutcherson, chief of the Bureau of Guidance of the New York State Department of Education, gave a talk on "Opportunities for Counselors in Secondary Schools." Eighteen students and four faculty members signified their intention of attending the national convention of the NVGA this spring in Chicago, where a reunion dinner of Teachers College alumni will take place the evening of March 30, in connection with the convention.

PROFESSOR Ruth Strang has been active in the preparation of the 1948 yearbooks of the National Society for the Study of Education. She served as chairman of the second volume of the yearbook on *Juvenile Delinquency and the Schools*, and was a member of the committee on *Reading in Secondary School and College*, for which she wrote the chapter on diagnosis and remedial methods.

Division IV

Instruction

CURRICULUM AND TEACHING

SABBATICAL leaves for the spring semester have been granted to Professors L. Thomas Hopkins and Florence Stratemeyer. Professor Hopkins plans to spend the time writing and visiting Puerto Rico to study educational conditions. He will give the opening address and lead a study group at the meetings of the International Association for Childhood Education in St. Louis the week of April 19. Professor Stratemeyer will, in addition to visiting teachers colleges and schools of education, make a study of curriculum problems and practices in pre-service teacher education. The Teacher and Elementary Education Clubs honored the two professors at a joint farewell party January 16.

ON January 28, Professor Emma D. Sheehy spoke to the Nursery Education Council of Nassau and Suffolk Counties on "Creative Arts in Child Development," and on February 26, she addressed the New Jersey State Safety Council, Inc., at Newark on "Play and Safety."

AT a mass meeting in Erasmus Hall High School in Brooklyn January 27, Professor Roma Gans went on record endorsing the law to abolish discrimination in higher education by prohibiting the quota system for admission to colleges and universities which is currently being urged in the New York State Legislature.

Professor Gans also gave a lecture at the annual meeting of the Honor Societies of Ohio State University January 14. Her topic was "The Status of Education in These Critical Times."

THIS year's majors in the early childhood education section include teachers from China, India, the Philippines, Venezuela, Peru, Brazil, Puerto Rico, the Bahamas, Sweden, France, and Denmark. These students, all interested in the improvement of educational programs for young children in their own countries, are particularly hopeful of developing elementary schools with a beginning age of three years.

NATURAL SCIENCES

DURING January, Professor Gerald S. Craig spoke to the Staten Island Primary Study Group; addressed the annual conference of the Nebraska County Superintendents' Association and the Department of Instruction; worked as a consultant in the Atlanta, Ga., Area Teacher Education Service, meeting with supervisors, teachers, and administrators in Fulton and DeKalb counties and the Atlanta schools, and participated in a teacher education conference at the University of Georgia.

Professor Craig will direct a natural science field center for the University of Puerto Rico during the summer.

ENGLISH AND FOREIGN LANGUAGES

The secondary school English teachers of the Bethlehem, Pa., Public Schools have been working with Professor Lennox Grey on the development of an English curriculum which will meet the needs of all the students in the local secondary schools.

SPEECH

As president of the Speech Association of America, Professor Magdalene Kramer attended the annual convention in Salt Lake City on December 29 to 31, delivering the opening address on "The Role of Speech in Education: A Re-evaluation." Following the convention, she visited the speech departments of universities on the West Coast.

FINE ARTS

An all-day workshop January 19 in San Antonio for art teachers of the area was conducted by Professor Elise E. Ruffini in the Witte Museum.

Miss Lucia Dement, teacher of art in the Horace Mann Elementary School from 1910 to 1917, and instructor in fine arts education at Teachers College from 1917 to 1935, died November 26 in Memphis, Tenn., where she had been living since her retirement July 1, 1935.

MUSIC EDUCATION

"Problems and Your Subconscious Mind," an article by Professor James Mursell, appeared in *Your Life* for January. Professor Mursell also contributed to the first 1948 membership service bulletin of the Association for Childhood Education.

On January 11, Professor Raymond Burrows and Professor Anthony Loudis of the University of Delaware appeared as soloists with the Alabama Polytechnic Institute orchestra in Auburn, in the Bach *Concerto for Two Pianos.* January 12, they gave a two-piano recital. Professor Burrows also conducted a demonstration clinic for piano teachers. On January 13 and 14, he and Professor Loudis participated in a similar two-day festival at the State Teachers College in Montgomery, Ala.

The year end luncheon of the Music Trades at the Hotel Woodstock, New York, was held December 30, and Professor Burrows spoke on "Recent Developments in Piano Classes Throughout the Country." On January 5, he addressed the teachers' meeting at East Haddam, Conn., on "What Music Can Do for the Entire School Curriculum." Professor Burrows spoke to the teachers of the Colchester, Conn., school on "The Relationship of Piano Study to the Entire School Curriculum" February 9.

On February 12 and 13, he conducted a leadership conference with divisional piano chairmen of the Music Educators National Conference at the Congress Hotel in Chicago. Six divisional chairmen, representing the work of the organization in different parts of the country, were present at the sessions.

Professor Harry Wilson's summary of the music section of the November conference of the National Recreation Congress appears in the January issue of the magazine, *Recreation.*

On January 16, Professor Wilson gave a demonstration of choral techniques for the Eastern division of the National Catholic Music Educators Association in Wilkes Barre, Pa.

THE first general session of the Iowa Music Conference in Des Moines January 2 and 3 heard an address by Professor Lilla Belle Pitts.

DURING his sabbatical leave this spring, Professor Norval L. Church will return to Logan, Utah, to fulfill a one-month teaching appointment in June.

HOME ECONOMICS

AMONG the speakers at the school lunch institute October 25 sponsored by the New Jersey College for Women and the New Jersey State Department of Education was Professor Mary de Garmo Bryan.

BUSINESS AND VOCATIONAL EDUCATION

PROFESSOR Hamden L. Forkner, home from a wintertime tour of Western Europe, gave two lectures about his trip at the beginning of the spring semester. After visiting the Scandinavian countries, Professor and Mrs. Forkner traveled through Germany, Holland, and Belgium.

HEALTH EDUCATION AND PHYSICAL EDUCATION

AT the meeting of the Pennsylvania State Association for Health, Physical Education, and Recreation in Pittsburgh December 19, Professor Clifford L. Brownell addressed members on "The Physical Educator—His Responsibilities and Opportunities," and participated in a radio broadcast in which health and physical education in the community were discussed.

Professor Brownell was recently elected to the general policies board of the New York State Association for Health, Physical Education, and Recreation.

SERVING on the R. Tait McKenzie Memorial Committee of the American Association for Health, Physical Education, and Recreation, which recently dedicated the memorial, "Column of Youth," in the NEA Building in Washington, was Professor Harry A. Scott.

THE Springfield, Mass., Women's Club heard Professor Josephine L. Rathbone speak on "Peace and the Women's Contribution to It" January 28.

PROFESSOR E. Patricia Hagman has been appointed representative from the New York State Association to the Legislature Council of the Association for Health, Physical Education, and Recreation (Eastern District).

THE Toronto, Canada, group formulating an Interprovincial Rotary Board for women's sport officials had Professor Marjorie Hillas as consultant at a meeting January 9 and 10.

MISS Marguerite Vollmer, now an instructor at the College, discussed "Mental Hygiene" at the bi-monthly meeting of the Oceanside, N. Y., Community Health Council January 19. She was formerly on the faculty of the Oceanside High School.

Office of Field Relations and Placement*

The following list continues the appointments of Teachers College Alumni reported in the February *Record.*

Pino, Rene F. (A.M. 1947), assistant professor of Spanish, Marshall College, Huntington, W. Va.

Pistor, Frederick (A.M. 1929), director of teacher education, Maryland State Teachers College, Frostburg, Md.

Pittman, Josie Morgan (A.M. 1939), itinerant teacher trainer, North Carolina College, Durham, N. C.

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*Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Field Relations and Placement. For initial registrations covering three years, no fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Pratt, Mary E. (A.M. 1947), kindergarten critic teacher, State Teachers College, Oswego, N. Y.

Pringle, Eugene A., teacher of English and music, American College, Tarsus, Turkey.

Pugsley, Helen R. (A.M. 1930), dietitian, St. Elizabeth's Hospital, New York, N. Y.

Quinn, John F., dean of men, Rhode Island State College, Kingston, R. I.

Quinn, Leonard C. (A.M. 1947), teacher of sixth grade, Madison School, Everett, Wash.

Ralston, James H. (A.M. 1946), assistant professor of music, Westminster College, New Wilmington, Pa.

Raney, Emmett Lee (A.M. 1947), assistant professor of speech, Central Michigan College of Education, Mount Pleasant, Mich.

Ratet, Hilda Patricia (A.M. 1947), teacher of commercial subjects, Lafayette School, Elizabeth, N. J.

Rath, Hilda (A.M. 1947), educational art representative, Binney & Smith Company, New York, N. Y.

Rauch, Juanita M. (A.M. 1947), instructor in secretarial science, University of Denver, Denver, Colo.

Raviella, Luke (A.M. 1941), instructor in music, High School, Garfield, N. J.

Raymond, Joseph B., instructor in Spanish, Washington University, St. Louis, Mo.

Reasor, Edward I. (A.M. 1944), instructor in art, Indiana State Teachers College, Terre Haute, Ind.

Reed, Carroll Melvin (A.M. 1947), supervisor of music, Rodeo School, Rodeo, Calif.

Rein, Melvin D. (A.M. 1947), teacher of piano, Educational Methods, Inc., Philadelphia.

Rieg, C. Elizabeth, supervisor of pupil personnel, Calvert County, Prince Frederick, Md.

Rios, John Fidel (T.C. Dp. 1944), instructor in Spanish, Stephens College, Columbia, Mo.

Ritzman, Martin P., teacher of English, social studies and librarian, Junior High School, Amityville, N. Y.

Roberts, Dorothy Miriam (A.M. 1939), instructor in public health nursing, Joseph Lawrence School of Nursing, New London, Conn.

Robertson, Wanda (A.M. 1936), assistant professor of education, University of Utah, Salt Lake City, Utah.

Rochstein, Abraham (A.M. 1947), director of physical education, Jewish Center, Port Chester, N. Y.

Rockwell, Evelyn V., teacher of first and second grades, Saipan School for Dependent Children, Saipan, Marianas Islands.

Roed, Elizabeth Rowe, kindergarten teacher, Brooklyn Friends School, Brooklyn, N. Y.

Roll, Arthur F. (A.M. 1947), instructor in industrial arts, State Teachers College, Oswego, N. Y.

Rosenthal, Doris (A.M. 1947), research assistant, Memorial Hospital, New York, N. Y.

Rumsey, Virginia G. (A.M. 1947), teacher of first grade, Public School, Nyack, N. Y.

Russo, Edward Joseph, teacher of sixth grade, Horace Greeley School, Chappaqua, N. Y.

Rydzel, Joseph S., instructor in German, Rockhurst College, Kansas City, Mo.

Saper, Bernard (A.M. 1947), psychologist, New York State Department of Mental Hygiene, Letchworth Village, New York.

Savitch, Leonard (A.M. 1947), teacher of general science, William P. Bancroft School, Wilmington, Del.

Schild, Robert J., instructor in social studies, Junior-Senior High School, Nyack, N. Y.

Schmitt, Ruth (A.M. 1947), assistant professor of speech and dramatics, Morehead State Teachers College, Morehead, Ky.

Schuman, Vincent B. (A.M. 1947), director of health and physical education, YMCA, Stamford, Conn.

Schwoerer, Beatrice L., teacher of mathematics, High School, Cranford, N. J.

Selwyn, Hannah (A.M. 1947), teacher of art, Laurel Special District Schools, Laurel, Del.

Shafran, Raquel E., group teacher, Hillside Homes Nursery School, Bronx, N. Y.

Shankle, Bonnie, teacher of English and Latin, Beall High School, Frostburg, Md.

Shapiro, Elaine S. (A.M. 1947), assistant in the teaching of speech, Teachers College, Columbia University, New York, N. Y.

Shoen, Harriet H. (A.M. 1931), head of history department, Davis and Elkins College, Elkins, W. Va.

Slader, Peter P. (A.M. 1941), teacher of science and coach, St. James School, St. James, Md.

Smith, Alden Wallace (Ph.D. 1947), vice principal, Galileo High School, San Francisco.

Smith, Charles R., instructor in industrial arts and music, Northwood School, Lake Placid, N. Y.

Smith, James Morgan (A.M. 1947), instructor in physics, Thiel College, Greenville, Pa.

Smith, Ralph H., teacher of English and journalism, High School, Mineola, N. Y.

Sobel, Ada, instructor in English, Bergen Junior College, Teaneck, N. J.

Spangler, Harry, associate professor of music, Bowling Green State University, Bowling Green, Ohio.

Stanimirova, Gita V. (A.M. 1940), educational director, Dunally Gardens Nursery School and Kindergarten, Jackson Heights, N. Y.

Starbuck, Ann (A.M. 1944), teacher of first grade, St. Luke's School, New York, N. Y.

Stoke, Barbara, teacher of art, Public Schools, Walton, N. Y.

Sutherland, Clara (B.S. 1942), teacher of second grade, North White Plains Public School, North White Plains, N. Y.

Swindells, E. Dorothy (A.M. 1940), teacher of chemistry, Onondaga Valley Academy, Syracuse, N. Y.

Tate, Robert Z. (A.M. 1944), assistant professor of music, University of Nevada, Reno.

Taylor, Edward, director of music, High School, Fonda, N. Y.

Taylor, E. Gretchen (A.M. 1933), dean of women, Ithaca College, Ithaca, N. Y.

Tetkowski, Clement T. (A.M. 1947), supervisor of art, Central School District No. 1, So. Fallsburgh, N. Y.

Thompson, Willa M. (B.S. 1939), food service director, Bethany College, Bethany, W. Va.

Tobin, Mary Patton (A.M. 1946), head of home economics department, High School, Rye, N. Y.

Tucek, Mary Ann, assistant-instructor in microbiology, Teachers College, Columbia.

Turek, Anna A. (B.S. 1947), nurse-teacher, High School, Rye, N. Y.

Turner, Edith Elizabeth (A.M. 1946), teacher of art, Public Schools, Malverne, N. Y.

Turpin, C. L. (A.M. 1947), teacher of mathematics, Sumner High School, Kansas City, Kan.

Uran, Robert L. (A.M. 1947), teacher of commercial subjects, High School, Hampton Bays, N. Y.

Van Til, William (A.M. 1935), professor of education, University of Illinois, Urbana, Ill.

Vance, Margaret V. (A.M. 1944), dietitian, State Teachers College, Mansfield, Pa.

Vest, Ruth W. (A.M. 1941), associate professor of art, West Liberty State College, West Liberty, W. Va.

Vickers, Elizabeth V. (B.S. 1942), director, Central Club for Nurses, New York, N. Y.

Volin, Estelle (A.M. 1945), instructor in physical education, New Jersey College for Women, Rutgers University, New Brunswick, N. J.

Votto, Frank V. (A.M. 1947), instructor in social studies, St. John's University, Brooklyn, N. Y.

Wagner, Marjorie K. (B.S. 1947), head of music department, Stuart Hall, Staunton, Va.

Walker, Rena (A.M. 1947), assistant professor, University of Florida, Gainesville, Fla.

Wall, Adelaide M., consultant in nutrition, Social Welfare Department, Albany, N. Y.

Wallace, Shirley Andron (A.M. 1946), instructor in home economics, Wellington C. Mepham High School, Bellmore, N. Y.

Wallenbergh, Harry C. V. (A.M. 1938), professor of speech, Marymount College, Tarrytown, N. Y.

Walton, Queenabelle A. (A.M. 1946), director of women's physical education department, Bluefield State College, Bluefield, W. Va.

Walz, Vina E. (A.M. 1933), instructor in history, Springfield College, Springfield, Massachusetts.

Warner, Berniece (A.M. 1947), supervisor of vocal music, Public Schools, Kenton, Ohio.

Way, Olivia R. (A.M. 1947), librarian, High School, Fair Lawn, N. J.

Webb, James R., Jr. (A.M. 1947), director of physical education and coach, Texas College, Tyler, Tex.

Webster, E. Douglas, dean of men, Utica College of Syracuse University, Utica, N. Y.

Weinstein, Ruth B. (B.S. 1942), educational director, The Presbyterian Hospital School of Nursing, Newark, N. J.

Weiss, Le Roy A. (A.M. 1947), director of physicial education and coach, Penns Grove High School, Penns Grove, N. J.

Wheat, Leonard B. (Ph.D. 1931), resident manager of extension division and assistant professor of education, Duluth branch, University of Minnesota, Minneapolis, Minn.

Whitney, Reynolds, Jr. (A.M. 1947), instructor in music, St. Louis Music University, St. Louis, Mo.

Williams, Roderick O. (A.M. 1947), assistant professor of music, Bucknell University, Lewisburg, Pa.

Wise, Ernest G. (A.M. 1947), teacher of eighth grade, State Teachers College, Campus Elementary School, New Paltz, N. Y.

Wright, Ellen N., teacher of fifth grade, Jackson Avenue Grade School, Mineola, N. Y.

Wright, Helen E., instructor in clothing, Saint Mary-of-the-Woods College, Saint Mary of the Woods, Ind.

Wujcik, Antoinette (A.M. 1947), teacher of mathematics and science, De Ruyter, N. Y.

Wunderly, George A. (A.M. 1940), guidance counselor, South Junior High School, Newburgh, N. Y.

Yakel, Ruth Mary (A.M. 1946), instructor in foods and assistant therapeutic dietitian, Indiana University Medical Center, Indianapolis, Ind.

The following recent appointments of Teachers College Alumni are reported by the Office of Field Relations and Placement for February:

Alfano, George A. (A.M. 1947), director of athletics, Lincoln Center, Poughkeepsie, N. Y.

Andrews, Mary Jane Hungerford (Ph.D. 1947), assistant professor of physical education, New Jersey State Teachers College, Upper Montclair, N. J.

Bane, Allyne (A.M. 1943), head of primer department, Simplicity Pattern Company, New York, N. Y.

Barcewicz, Anthony W. (A.M. 1947), supervisor of student teaching, State Teachers College Training School, Westfield, Mass.

Becker, Martin, J. (A.M. 1947), teacher of English, algebra, and general science, Washington State Reformatory, Monroe, Wash.

Bellack, Arno A. (A.M. 1946), instructor in education, University of Illinois, Urbana, Ill.

Benson, Dorothy M. (A.M. 1945), supervisor of music, Public School, Somerville, N. J.

Biondo, Charles A. (A.M. 1947), instructor in music, University of Notre Dame, Ind.

Bjerring, Isabella (A.M. 1945), librarian, Thomas Jefferson Senior High School, Port Arthur, Tex.

Blair, Marjorie Jacot (A.M. 1947), teacher of history, Leonard School for Girls, New York, N. Y.

Bloder, Mary (A.M. 1938), instructor in science, Lahainaluna High School, Lahaina, Maui, T. H.

Borges, Frederic W., instructor in mathematics, Eron Preparatory School, New York, N. Y.

Brand, Charlotte M. (A.M. 1947), instructor in textiles and clothing, San Bernardino Valley Union Junior College, San Bernardino, Calif.

Brown, Joseph C., principal, Baden Public School, Brandywine, Md.

Brown, Lynn E., Jr. (A.M. 1938), instructor in education, Teachers College of Connecticut, New Britain, Conn.

Bushman, Franklin F. (A.M. 1946), director of music, State Teachers College, Whitewater, Wis.

Calitri, Junius (A.M. 1945), teacher of physical education and science, Putnam Valley Central School, Putnam Valley, N. Y.

Caswell, Elizabeth Amelia (A.M. 1941), investigator, Veterans' Assistance, Department of Welfare, New York, N. Y.

Cocco, Americo P., instructor in social studies, Seton Hall College, South Orange, N. J.

Copper, Beatrice M., teacher of fifth grade, Lakeview School, Malverne, N. Y.

Cuddy, James (A.M. 1947), athletic director, University of Connecticut, Ft. Trumbull Extension, New London, Conn.

Curatolo, Anthony (A.M. 1941), teacher of Spanish, Boys High School, Brooklyn, N. Y.

Darland, D. D. (Ed.D. 1947), assistant professor of educational administration, University of Wyoming, Laramie, Wyo.

Davis, Edna (A.M. 1947), instructor in clothing and art, Southern University and Agricultural and Mechanical College, Baton Rouge, Louisiana.

Dickson, Thelma E., teacher of mathematics and English, Woodmere Academy, Woodmere, N. Y.

Dominick, Rocque F. (A.M. 1947), instructor in music, State Teachers College, Potsdam, N. Y.

[*Continued in the April* RECORD]

Alumni Activities

NEW general director of the National Organization for Public Health Nursing is ANNA FILLMORE (B.S. 1940), successively since 1940 staff nurse, supervisor, industrial nursing consultant, and assistant director of the Visiting Nurse Service of New York. Miss Fillmore was previously director of the Bureau of Public Health Nursing in the Utah State Health Department, and assistant director of the American Nurses Association of New York.

FORMERLY with the U. S. Office of Education, associated with the U. S. Surplus Property Plan, and organizer and director of Saipan University, where sailors and marines worked for high school diplomas and college degrees, CLINTON NICHOLS (A.M. 1938) has returned to government educational duties from his recent position as vice president of the State Teachers College at Farmington, Me. Mr. Nichols, whose accomplishments with the Navy were praised by former Secretary of the Navy Forrestal, will work in Wiesbaden, Germany, in an administrative capacity.

ORGANIZER and first director of the Jacksonville, Fla., Visiting Nurse Association, ELIZABETH REED, former graduate student, has been named acting director of the division of health information of the Florida State Board of Health. Miss Reed has served on the staff of the Institute of Inter-American affairs, and was stationed with that organization in Brazil for two years. She is president of the Florida Nurses' Association.

KENNETH C. STREIBIG (A.M. 1947) is the new dean of Weylister Junior College, Milford, Conn.

INDIANA, Pa., Hospital's new director of nurses and nursing is NETTIE E. BEALER (A.M. 1940), who has engaged in professional organization work in various states.

APPOINTED superintendent of schools in Cleveland this year, MARK C. SCHINNERER (A.M. 1923) was recently elected president of the City Club.

FOR 20 years an administrator in Ohio schools, MAHLON A. POVENMIRE, former graduate student, has been appointed principal of Lakewood, Ohio, High School. Mr. Povenmire has been superintendent of Galion, Ohio, schools since 1941.

STATE chairman of the art committee of the American Association of University Women in Massachusetts since 1946, GERTRUDE A. BEERS (Ph.D. 1935) is also serving on the Eastern Art Association council.

LLOYD M. JONES (Ph.D. 1935) has been elected president of the College Physical Education Association for 1948.

LONG active in YMCA and USO work in the New York area, HAROLD S. LAVERY, former graduate student, is now executive secretary of the Morris County, N. J., "Y."

IN an article in the January issue of *Your Life*, "Of Course You Can Read Faster!," NORMAN LEWIS (A.M. 1941) states that "everyone is capable of increasing his speed and comprehension. . . . There are two prime requisites: daily reading of challenging books in long stretches; and conscious speeding up of one's potential rate of thinking."

In student personnel services work at Grambling, La., College, Bessie E. Dickerson (A.M. 1944) has conducted a preschool work conference for teachers in Terrebonne Parish (County) for which Grambling College has assumed educational responsibility; has been assistant director of a Tuskegee-Grambling Workshop for Jeanes Supervisors, which is directed by Kara Jackson (A.M. 1942), and is consultant in the area of audio-visual aids in various work conferences in Louisiana. Mrs. Jackson was recently appointed Jeanes supervisor for the Southern region by the Southern Education Foundation.

As a memorial to the late Abbie Roberts Weaver (A.M. 1921), the Cincinnati Visiting Nurse Association has presented a gift to the Cincinnati Committee on Better Nursing, with the hope that it will be used to further the cause of advanced nursing education in the public health nursing area. Mrs. Weaver was an authority on rural public health nursing, and long active in the Cincinnati Visiting Nurse Association.

Harriette Overton Aull (A.M. 1925) has been named executive director of the Girls Clubs of America, Inc., with headquarters in Springfield, Mass. Miss Aull was chief recreational consultant in the Hospitals Department in the European Theater of Operations.

With Dr. Daniel A. Prescott, Julia Weber (A.M. 1939) is author of "Too Tall to Measure," an article in the November *Virginia Journal of Education* discussing clues to problems centered in physical growth. Miss Weber is a rural supervisor in Warren County, N. J.

Veteran of service with the American Red Cross in Hagerstown, Md., and the U. S. Occupied Territory in Europe, Phoebe Steffey, former graduate student, has been appointed recreational director of West End Neighborhood House in Hagerstown.

Gordon G. Singleton (Ph.D. 1925), president of Mary Hardin-Baylor College, Belton, Tex., was recently elected a fellow of the American Association for the Advancement of Science.

Appointed community activities advisor by the board of trustees of the Winfield Mutual Housing Corp., Newark, N. J., is Philip J. Sheridan, former graduate student, who has been recreation director of the Riverside and Clinton community centers in New York.

The Western District of the Maine State Nurses' Association heard Mary A. Maher (B.S. 1941), dean of the new Boston College School of Nursing, speak on "Human Relationships of the Professional Nurse" following a dinner in Portland January 21.

The Dover, N. J., Recreation Commission has announced the appointment of Kenneth A. Heaton (B.S. 1947) as superintendent of recreation.

Suggestions for improvement of the Alabama Education Association by E. J. Landers (A.M. 1927) were carried recently as a letter with editorial remarks in the *Alabama School Journal*, and another comment was published in the "Our Members Write" department of the *NEA Journal*.

Ruth Cunningham Harley (A.M. 1928) is serving as assistant director of training at State Teachers College, Shippensburg, Pa.

On furlough from missionary duties in Bengal-Orissa, India, is Harold I. Frost (A.M. 1919).

The Saturday morning art classes for students from six to sixteen years at the High Museum School of Art, Atlanta, Ga., supervised by Mrs. Neel Kendrick Whitman, former graduate student, exhibited their work in the American Crayon Company Studios at Rockefeller Center, New York.

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(1943) 386 pp. Cloth $3.50

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George L. Bush. (1941) 240 pp. Cloth $2.35

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TEACHERS COLLEGE
RECORD

The True Relation of Education to War and Peace*

WILLIAM F. RUSSELL
DEAN OF TEACHERS COLLEGE

How to avert war is the world's top problem. It fazes the United Nations. It frustrates the foreign ministers. It drives man to despair. Coming elections will be decided on this issue. Social institutions, including the schools, are being studied and assessed in relation to their contribution to war and peace.

Teachers' associations ask the persistent question, what can the schools, or other means of education, do to prevent war? That is my topic today. I am not considering what education can do to rebuild or reconstruct the world, or to make a happier life, or to increase productiveness, or to provide better health, or to do anything else, no matter how worthy it may be. I am considering solely the possible relation of schools and other means of education to peace and war.

We, as schoolmen, cannot keep the subject off our minds, because we cannot keep it off our consciences. We cannot but believe that somehow or other schools have something to do with war. In the preamble to the Constitution of UNESCO are the words, "Wars begin in the minds of men." The minds of men are what they are because of the impact of heredity and environment. Much of mental change is caused by environment. Much of environment is education. A good part of education is conscious, the work of schools and other agencies of education such as the cinema and radio.

We know that a pair of identical

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*An address given at the annual luncheon meeting of Phi Delta Kappa in Atlantic City on February 24, 1948, and published in the March issue of *Phi Delta Kappan*.

twins, with nearly identical heredity, will vary according to their environment. Place both in Russia and they will support communism. Place both in the United States of America and they will support free enterprise. Place one in one country and one in the other and one will become loyal to America and the other to Russia; and in these two the seeds of war will have been planted.

That is why in educational meetings there is so much interest in education for peace. Each of us wonders what his part is, what he can do, and how best to do it. We hear so much talk. So many suggestions are made. Societies are formed and we are urged to join. Meetings are called and we attend. But no single road is pointed out to us. No one map charts the way. There is no course of action upon which all agree. Just what can we do—you and I? That's the question. That's what we want to know.

There are several schools of thought which I shall sketch for you in quick vignettes—just as the artist draws a cartoon. These pictures will sacrifice completeness to brevity and balanced appraisal to quick impression. I put before you in a general way four programs commonly accepted as central and important contributions of education to avoiding war and keeping peace.

First, there are the advocates of *Educational Reconstruction.* They believe that in a world in shambles, with schools destroyed, teachers dispersed, equipment lacking, children hungry, homeless, and vagrant, you have the situation most favorable for war. War comes from ignorance and hopelessness, when people are desperate because they are ignorant, unproductive, improvident, diseased, and gullible. First, feed the people, clothe them, shelter them, teach and enlighten them; and then they will become self-supporting, self-respecting, and self-governing. Collect the money, books, and equipment. Help to restaff and reactivate the schools. Then you will have a base upon which peaceful attitudes may develop.

I want no one to misunderstand what I am about to say. Within the last twelve months, I have seen some of these ruined communities with their ruined schools. I know the conditions of Houffalize, Bastogne, and Caen. The teachers there deserve our highest admiration. The drives of TICER and the NEA deserve our full support. But efforts of this type have little relation to the work of the school for either peace or war. All that reconstruction does is to open a school and get an educational program under way. Such a program may work toward either peace or war.

When the *Educational Reconstructors* assume that the mere rebuilding of an educational system is a necessary step toward peace, they make the same mistake that the Fathers of our Constitution or the leaders of the French Revolution made when they thought that mere extension of education to all would provide a bulwark for democracy. Jefferson thought that if the people were "enlightened"—that is, schooled—all would be well. But Hitler and Hirohito have demonstrated in recent years that widespread compulsory popular education may be just as effective a bulwark for despotism. No! Reconstruction may bring happiness, self-respect, and general welfare, but whether it brings peace depends on other factors.

Secondly, there are those who advocate the *Interchange of Persons*. Their theory is that war comes from isolation, from ignorance of others. (Do not introduce me to my neighbor, because if I met him I might like him, and I hate him.) Break down barriers. Interchange pupils, students, research workers, and professors. Scandinavian boys and girls are now visiting the Metropolitan School Study Council in New York; Latin Americans visited it last year. Reflect upon the extraordinary results of the educational use of the Boxer Indemnity Fund, which sent thousands of Chinese students to the United States, and of the Rhodes Scholarships. Write letters back and forth; interchange teachers; send thousands under the Fulbright Act. Note the work of the Guggenheim Fellows.

Again, do not misunderstand me. The fact that most American scholars from 1880 to 1900 studied in Germany did not prevent war. Recall that some of the German alumni of the Elsinore International School returned to Denmark as conquerors; and many of the good-will pupils sent by Germany to Norway used their knowledge to betray their benefactors. Even Otto Abetz, Gauleiter of Paris during the occupation, had previously been a good-will fellow to the Sorbonne. I consider, nevertheless, that interchange of persons has great value. Surely it will make for mutual understanding, and frequently, although not always, for good will; but absence of interchange does not cause war, nor will full interchange prevent it.

Then there are those who urge free flow of communication, the *Share the Ideas* school, the work-together advocates, to whom UNESCO is devoting a large share of its money. UNESCO has plenty of money—more money than insight. In the belief that a free flow of ideas is basic to peace, UNESCO has embarked on such projects as the one designed "to preserve the fauna and flora of the Galapagos Islands," the establishment of an Institute to study the Hylean Amazon, and the development of "fundamental education in Haiti." Of $231,319 appropriated under formal agreement with the International Council of Scientific Societies to aid various scientific societies, $10,936 was appropriated to foster "International Zoological Nomenclature" and $11,740 to bring the astronomers together. Plans are being made to send parties of survey experts into various countries upon their invitation.

Again, I hope not to be misunderstood. I am not an opponent of the *Share the Ideas* school. In fact, at Teachers College this is exactly the task that we have been working at for many years. Last fall we had 451 students from foreign lands, including 129 from Latin America and 68 from China. We are committed to the stimulation of the free flow of ideas. I grant that such a flow is valuable for social betterment, for health, for productivity; but is it, in any sense, a guarantee against war or an insurance for peace? Certainly some former Teachers College students were active enemies of the United States before and during World War II.

Last, there is the *Direct Teaching of International Good Will* school. Prepare books and other curricular materials dealing with peace and international understanding; educate the teachers to carry out work of this sort; and the result will be the international mind and peace on earth. The logic of this position is easily understood. Hitler bent the German schools to war. He taught ideas of world dominance, master race, Aryan superiority, and the beauty and nobility of war. Why not reverse the process? Teach peace, interdependence of mankind, good will. The result is a lot of talking about peace. How many such talks have I heard! In fact, how many such talks have I given! I remember one in Mainz, to a typical German audience, which was most enthusiastically received. The textbooks in Bavaria and Baden in the 1920's oozed international good will.

This school of thought is hard at work again. I am a member of the NEA Committee on International Cooperation. For two years we have been preparing a major work on teaching for peace. The World Organization of the Teaching Profession, with members all over the world, has assigned one-fifth of its appointed task for this year to a similar project. UNESCO devoted a seminar to the problem in Paris last year and will have another one at Lake Success this summer. In Mexico I attended several meetings of the "working party," which was patiently struggling with this problem. I gathered that most of those who participated in these studies had hopes that thereby a real contribution might be made to the direction of education toward peace.

But teachers should know better. They know that such an educational program can contribute to culture, to general education, to learning, and to the dissemination of superior practices and ideas; but to peace, that is something else again. Dewey's students know that moral teaching results not so much in moral conduct as in ideas about morality; that health teaching is likely to yield ideas about health, rather than healthy habits. So it is with the direct teaching of international good will. Some good will may be achieved; but much more likely to ensue are ideas about good will.

These four lines of work are all good; they are worthy of our support because of their possible contribution, not to peace, but to other desirable social goals. Not one of the four—nor all the four put together—chart the course that educators can follow or that schools and other educational institutions can follow in order to avoid war and to keep the peace. They miss the vital point.

What is the vital point? What is the way, if any, in which education can serve the cause of war and peace? To discover this, we should analyze again the situation in Germany and Japan in the period prior to the last war.

In both countries there were flourishing school systems. Nearly everybody went to school. Nearly everybody could read and write. Book sales were high, far higher per capita than in the United States. In Japan you could not stop your ricksha for two minutes without the ricksha boy's picking up his book. Even the handkerchief which he wrapped around his head had a story printed on it. School opportunities were at a maximum. No educational reconstruction was needed.

Both countries interchanged educational personnel. Japan used to send abroad great numbers of students, professors, scientists, and engineers. Germany sent many and received more. Both countries were assiduous in attending international conferences, in importing ideas, and even in assisting at astronomical conventions and helping to standardize international zoological nomenclature. Nevertheless, both were geared to war.

So far as the direct teaching of international ill will was concerned, it is difficult to learn the truth. Hitler certainly forced the teaching of war and hate in the schools, but there is some difference of opinion as to the full effect. So far as Japan up to 1932 is concerned, later visitors agree with my observations in 1918 and 1921 (at a time when Japan was already anti-American and pro-German) that there was no warlike air about the schools, except possibly on the school playground. The schools had an air of kindliness and friendliness, little discipline, and very little martial spirit in a uniform-ridden society.

Nevertheless, both school systems were perfect instruments for war, despite the fact that they were universal, that there was international exchange of persons, international exchange of ideas, and in the case of Japan a not too warlike appearing program. In each case, the educational system did just what the war lords wanted because, first, it turned out the great mass of the people with basic schooling, able to earn a living, and at the same time obedient subjects of the State, looking for orders, ready and willing to do as told, and eager for someone to tell them. In Germany, they were disciplined to be subservient members of the Master State. In Japan, on the other hand, they were trained to be members of a religious sect, artificially stimulated by the government, of which the emperor was God and Japan the chosen land. Second, in Germany, the mass of the people went to one kind of school and the potential leaders to another. These were kept apart from the common people and educated out of sympathy with them. Generally from favored classes, they looked down on the slaves; and even the few cases of emergence from the ranks, such leaders as army sergeants become lieutenants, were harder on the ranks than the West Pointers. In Japan there was less social distinction in the schools; many leaders came from the ranks of the peasants, but they were educated so far out of touch with the people, that they lost all sympathy. Third, schools were purely a function of the State, and the parents had to keep out.

Here, then, are the important ways

in which schools and an educational system work for the warmongers. If you want to bend the schools to war, you do not need to worry much about an iron curtain, or teacher training in patriotism, or revision of textbooks. See that every child goes to school; keep the parents out; make the child obey all the time. Never let him ask a question. Prohibit initiative. Permit no variation. Then train a set of leaders for this mass to obey. Pick them carefully, educate them for invention and initiative, keep them ruthless and cruel and completely devoted. You can do this more easily if you have an artificially created State church as in Japan, or a synthetic religion of Hitler-worship as in Germany. Then you will have a perfect instrument for war.

Jefferson and others of our Founding Fathers thought that you would have good government only if you had a free mind. Remember the words of the Ordinance of 1787, "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and other means of education shall forever be encouraged." But certain kinds of so-called religions, and certain codes of morality basic thereto, and certain kinds of knowledge, taught in a certain way, and certain kinds of schools and other means of education will lead to war. What is needed is the counteractive influence of the free mind, and with this, free religion and the free school. Nations are thought to be dangerous when they have huge standing armies and great military potential; but they are truly dangerous only when either by ignorance the people are naturally subservient to political and religious fanatics, or by the prostitution of their schools they develop a manufactured subservience to cruel leaders. Stanley Baldwin once said to me, "A democracy is that kind of government in which you can have a crazy man at the head and not ruin the people."

If we schoolmen here highly resolve to bend our energies to keeping peace and to averting war, our task is plain. We must keep our schools free, our children free, our leaders free and close to the people, and our parents responsible; and we must use our full efforts to guard these liberties in our own country and in every country on earth.

That is what UNESCO ought to do; but that is precisely what I fear it cannot do, organized as it is. It started in the minds of some teachers; the idea was nurtured during the war by the Council of Allied Ministers of Education. But now it is an agency of governments, and the delegates to UNESCO are government agents. In many nations the schools (and other means of education) have become instruments of national policy, or more precisely put, instruments of the policy of a political party or of a coalition of political parties. These parties determine policy, which the Ministry of Education puts into action.

Most of the delegates to UNESCO in Mexico City had been briefed by their foreign office. Frequently the head of a delegation was a minister or high official of a foreign office. So far as I could tell, there was only one teacher a full delegate, and not more than a half dozen among the alternate delegates who were primarily in teaching below the college level. What most delegates did at Mexico City had to be approved by some politician at home. For among the delegates were distinguished scholars, scientists, writers, and publicists, men and women of world-wide experience; and yet collectively they seemed so often to miss the point. Why, to add to the illustrations cited above, why allot $31,200 to the International Society of Microbiology, including the International Center of Type-Culture Collections? Why create an intersecretarial Translation Bureau to translate the Classics? Why organize a Youth Service Camp at Cauterets? Why set up a service to facilitate a "widespread understanding of painting," or "an anthology of creative writing under Axis occupation"?

After having supported projects like these, a delegate could face the politicians at home without fear of unhappy consequences. No political repercussions can arise from the preservation of the fauna and flora of a remote island, nor from teaching the ABC's in Africa, nor from the study of textbooks, particularly when it is only in the United States that they are much relied on. Foreign offices will subscribe to big principles and big words; but when it comes to a fight against political domination of the schools, don't call upon the politicians.

You have to call upon the teachers and the parents. Teachers with free minds who are resolved to keep free; teachers who insist on free schools to turn out free men to keep the minds of children free—such teachers cannot be controlled. No ministry, no inspector, no tyrant can avail against them. Neither inspectors, nor Gestapos, nor Quislings, nor Buchenwalds can stay them from their appointed fight. For centuries, teachers in occupied countries have taught contrary to the high command. The classroom is a good place for an underground. If teachers want schools to be free, they can keep them free. But they must have support.

That is why I have such great hopes for the World Organization of the Teaching Profession. Given the initial start by the NEA, now composed of the leading teachers' organizations of some twenty-five countries, at present hard at work—as we in Phi Delta Kappa know from the report of our delegate, Mr. Cook, who attended the meeting in Glasgow—WOTP is an agency of great promise and enormous potential power. It can stimulate the ideas and mobilize the support of the teachers of the world. Plans must be made, tactics must be devised to fan the flame of freedom everywhere. It can learn from its own members where the flame burns bright, and why; from the intimate and accurate knowledge of teachers alone it can tell where it flickers and burns low.

Just as teachers' associations have given powerful support to individual teachers and administrators; just as teachers' associations have walked into disgraceful school situations and have brought the full force of the indignation of our profession and friends of our profession to bear upon recalcitrant and venal school authorities; so the teachers of the world in world association, from the intimate knowledge within their own membership, can reveal facts, can point out dangerous practices by politicians, and "submit the facts to a candid world." If, by the process of joining together in national associations and showing our indignation, we, teachers, can check politicians within our own land, why cannot similar pressure from teachers internationally organized check warmongering politicians anywhere in the world? That is why we need a Teacher's Charter, as considered by UNESCO. But far more urgently we need an Education Charter.

You and I are members of Phi Delta Kappa. We have sworn to devote our lives to education, particularly through the public school. We must do all that we can to see that these schools serve the cause of peace. Reconstruction is not enough. Interchange of persons, valuable as it is, is beside the point. Free flow of ideas, generally good, can work either toward war or toward peace. Direct teaching is likely to disappoint. We have a different task. It is to work to prevent nations from developing educational programs, under political control, to make slaves of the people. We must work to preserve the responsibility of the parent. We must keep our potential leaders close to and in sympathy with the people. We must keep the schools free.

It is not likely that this task will be accomplished by politicians or financiers or cabinet ministers. It is a job for teachers and parents, individually and as they organize, and with most promise, I think, in one world organization of teachers and parents, if that can ever be attained.

So it is at this precise point, fellows in Phi Delta Kappa, that we must exert our full effort, now and for the rest of our lives, if our schools are to make their maximum contribution to peace.

Principles of Readability Applied to Reporting Research*

RUTH STRANG

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

If research is worth doing at all, it is worth reporting so that it will be read. Evenually it must "get into the minds of men who stir abroad"; it must be readable.

Some investigators stop writing English when they begin reporting research. They have difficulty in getting down to the truth of the matter. They neglect the fundamental principles of composition: coherence, unity, and emphasis. If they apply these and other principles of readability, research workers will more often write and be read.

The principle of appeal. Interest increases readability. If the reader sees that the report has meaning and use for him, he will put forth the effort that effective reading requires. It is the writer's job to make clear the purpose of his research and to suggest applications. In effect, he says to the reader, "Look, this is something new to you; this is something you can do."

The principle of personalization. Application of this principle puts human interest into the report of research. Cases are people. Even after they have been dehumanized by statistical treatment, they can still be used to personalize the report. Here are several ways in which this can be accomplished:

1. The writer can review the previous investigations as a story of other persons' successes and failures, leading up to the need for the present study.
2. He can tell how he collected and treated the data. There is drama in methodology.
3. He can use illustrative cases to make concrete the generalizations which he derived from statistical treatment.
4. He can describe and explain deviations from central tendencies.

The principle of patterning. Every research has a design that should be made plain to the reader. Out of his experience and study the writer has formulated certain hypotheses. These should be stated. He should then describe his plan for testing the hypotheses. The results of his study naturally follow, with their interpretation and the generalizations or conclusions that are warranted. Both the research and the report of research should have a design. To write such a report requires a sense of structure of sentences, of paragraphs, and of the chapter or article as a whole. The clear sentence offers to the reader a straight road of thought, with no detours. In research reports we find many examples of "tangled sentences." We also find many incoherent paragraphs and illogical organization of the whole report. If the writer does not have a sense of structure, how can he expect the reader to appreciate a pattern of thought?

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*A paper read at the meeting of the American Educational Research Association in Atlantic City, February 23, 1948.

The principle of emphasis. The writer should make certain that the reader gets the important points. Too frequently the main ideas are submerged in a welter of words. This principle has been well expressed by a French author: "*L'art de ne pas tout dire*"—the art of not saying everything—at least not in one sentence. This is particularly hard for the meticulous research worker to do because he wishes, quite rightly, to point out all the possible factors that may be influencing his results. For this reason he piles up one limiting phrase and clause after another. The result is that the reader is caught in a thicket of details. What he wants is a straightforward path to comprehension. Research reports are too often cluttered with "it would seem," "it should be recognized," "it was demonstrated," "one might judge," and other roundabout expressions. They are addicted to the passive tense. Translation of this cumbersome kind of writing into terse, active, subject-predicate form would vitalize many research reports.

The principle of dilution. A report of research can be too concentrated. Too great density of ideas makes reading difficult. Brevity may be puzzling. This principle leads to expansion instead of deletion. The writer should space his ideas so that the reader has time to grasp them. What fills the space between main ideas is of the utmost importance. As suggested in the previous paragraph, irrelevant details may detract the reader's attention, while apt illustrations and supporting details build up the main ideas. Research workers often have protocols that they never use to illumine and clarify their main points and lighten the report as a whole.

The principle of plain words. Choice of words is important in making a report readable. First, the writer should avoid empty words—fillers-in that do not carry essential ideas. Second, he should use short, simple, concrete words whenever possible. One measure of readability is the number of prefixes and suffixes per hundred sentences. Flesch[1] says that easy prose does not have more than thirty-one affixes per hundred words. Another measure of difficulty of a passage is the number of unfamiliar words. This is one of the factors used in the Lorge readability formula. The writer should not use technical words with which the reader is unfamiliar when one or two simple root words will convey the thought. If difficult technical words are necessary—and they often are—the writer should use them in a context that makes their meaning clear, or define or illustrate the word the first time that he uses it if this can be done without breaking the continuity of thought. Sometimes illustrations, charts, diagrams, or tables can be used much more effectively than words to clarify meaning. In these and other ways the author builds up the reader's background of experience so that he can comprehend a new concept.

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[1] Rudolph Flesch, *The Art of Plain Talk* (New York: Harper and Brothers), p. 43. 1946.

Profound and technical concepts obviously cannot be written so that anyone can comprehend them without difficulty. But the reader will grasp even essentially difficult material more easily if the principles briefly stated in this article are applied.

Statistical Understandings Every Teacher Needs*

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Almost anyone who is enthusiastic about a particular kind of subject matter can advance convincing arguments concerning the advantages which would accrue to the entire civilized world if teachers were required to understand that subject. And he is usually right. The only hitch is our inability to find enough teachers or prospective teachers who have the mental energy and physical stamina requisite for being at one time scholars in the subjects they teach, experts in child psychology and guidance, skilled teachers of reading able to give remedial help in whatever field they may be teaching, individuals well-versed enough in health education to lead their charges into good health habits, participants in public affairs with insight into the meaning of political and economic forces, participants in professional activities and teachers' organizations, devotees of the arts who, by introducing their pupils to beauty, can contribute to the enrichment of their personal lives, well-read men and women who have at least a nodding acquaintance with modern science and the social studies, and who above all this are gracious, happy, relaxed, friendly persons sufficiently unhurried to create an atmosphere in which children can live and develop normally. Doubtless everyone will agree that it is far easier to show *why* a teacher needs to know some particular thing than to show *what* can be eliminated from his course of study in order to make room for it.

I do not intend to tell you that every teacher needs to be a statistician, no matter how idyllic such a situation might seem to me. Rather, I have tried to take account of the multiplying demands upon today's teachers and to ask myself what is the least they can afford to know about the statistical way of thinking; what ideas, primarily statistical in nature, are essential to competent living in the modern world, to competent thinking about that world, to competent discharge of the functions of a citizen therein? The present discussion takes no account of the needs of the teacher who is doing research work, or who becomes a college teacher of education, or who undertakes to read widely in the research literature of a special field. It relates only to the general needs of the ordinary classroom teacher as he deals with pupils and meets his responsibilities as an educated citizen.

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*A paper read at the meeting of the American Educational Research Association in Atlantic City, February 24, 1948.

To a very striking degree our culture has become a statistical culture. Even the dullest person who may never have heard of an index number is affected in intimate fashion by the gyrations of those index numbers which describe the cost of living. Even on the most elementary level it is impossible to understand psychology, sociology, economics, finance, or the physical sciences without some general idea of the meaning of an average, of variation, of concomitance, of sampling, of how to interpret charts and tables. The deliberations of Congress and the state legislatures deal continually with matters in which it is impossible to reach a sound decision without weighing statistical evidence. Perhaps the clearest indication of the extent to which statistical ideas pervade modern life is the use made of such ideas by advertisers. Quoting statistics in favor of almost any product they wish to popularize, making liberal use of graphs, they tacitly assume that the American people are accustomed to thinking in statistical terms, or that if they do not understand they will at least consider a statistical argument incontrovertible.

Individuals who do not feel confident of their own ability to interpret a statistical statement usually resort to one of two extreme patterns, each unsatisfactory to the well-educated man. One of these extremes is the uncritical acceptance of any statement buttressed by numerical data, however fantastic. The other extreme is uncritical suspicion of *all* statistical reasoning. Between these two, the only alternatives would seem to be either dependence upon authority or some comprehension of what statistical reasoning is and on what principles it depends for validity and cogency. One usually cannot depend upon having a satisfactory authority at hand, however, and the person who would make judicious decisions in regard to personal conduct and to public policy will frequently need to base those decisions on information essentially statistical in nature. The conclusion seems inescapable that some aspects of statistical thinking which were once assumed to belong in rather specialized technical courses must now be considered part of general cultural education.

To provide such general cultural education will require undergraduate courses in which applications are made to the whole range of human affairs and in which emphasis is on concepts, logic, sources of data, interpretation, avoidance of common fallacies. The development of such courses in the first two years of the liberal arts college has been recommended by four independent committees which made public their reports during the year 1947. These various committees were appointed by the National Research Council, the Institute of Mathematical Statistics, the Inter-American Statistical Institute, and the Royal Statistical Society of London. The membership of the four committees did not overlap and their very similar conclusions were reached independently.

To implement the findings of these

committees, experimental work on the development of a general undergraduate cultural course in statistical methods has already been begun under auspices which augur well for its success and popularity. But if such a course is needed in the liberal arts college to provide a background essential for work in the social and physical sciences, to serve the future legislator and business man and housewife and agriculturalist and lawyer and physician, it is even more urgently needed in the teachers college. There are serious problems connected with finding teachers for such courses in either the liberal arts or the teachers college, but these are not the main interest in this discussion. Rather, attention is directed to the goals of such instruction, without delaying too long over its obvious difficulties.

Perhaps the most important thing educated persons—including teachers—need to know about statistical method is the uses which can be made of it. Such a course should help the student to find many new interests, to become curious about new problems for which he discovers there is a statistical key.

The ability to read simple graphs and tables is now so widely accepted as an essential part of general education that we need not discuss it extensively. Whereas it is now taught in the mathematics classes of almost every junior high school, twenty-five years ago it was considered technical and beyond the scope of high school work. It is doubtful, however, if even now the teachers who are not mathematics teachers receive enough instruction in this area to make such simple charts as might make their own teaching more vivid. Many teachers still skip all tables and charts in their own professional reading. Here is one of the basic communication skills which teachers especially need.

As to the nature of statistical thinking, educated persons—including teachers—need to know certain things. (1) Statistical method is a sort of telescope which enables one to survey a larger area than can be seen by the naked eye, to comprehend more facts than can be apprehended by direct and personal experience. (2) A statistical statement applies in general to a group but not necessarily to a particular selected individual in that group. (3) Understanding and interpreting a set of data require much more than just making the appropriate computations. Computation is only a step in the logical process. No amount of elaborate calculation can take the place of careful initial thinking about a problem. It is not sensible to make an elaborate analysis of meaningless data. (4) Any generalization to a larger group of an observation made on a smaller group is statistical in nature. A large part of our thinking about the world is of this kind, vague perhaps and often slipshod, yet essentially statistical. There are certain controls which must be exercised over such thinking if it is to be valid.

Educated persons, especially teachers, need some understanding of the universality of human variability. This important statistical concept is still widely and woefully misunderstood.

A norm on a test intended only as a description of central position is interpreted as a standard to which individuals must conform, whether or not conformity benefits them. Parents worry needlessly about whether their children are overweight or underweight, above or below average in any trait on which they can find a published norm. The person who knows only enough about statistical method to acquire an imposing vocabulary sometimes forgets the essential fact of variability and uses a norm like a Procrustean bed on which the lesser individuals are ruthlessly stretched and the giants are tragically amputated. Another related and common fallacy with bad social consequences is the assumption that when the mean of Group A is significantly greater than the mean of Group B, every individual in A is fairly certain to exceed every individual in B. Think of the vast possibilities for mischief inherent in that fallacy. I have heard a college professor of chemistry seriously propose to discourage women from studying chemistry and physics because of the well-known fact that when scores of women and men students in these subjects are compared the women almost always come out with a lower mean. A similar fallacy runs through the thinking of a great many otherwise educated people when they deal with social questions involving a comparison of the sexes, of two races, of two economic groups. If teachers themselves could become so familiar with overlapping frequency distributions that they could help high school students learn to avoid this particular piece of stupidity that would be a result of real social importance.

The approximate nature of all measurement is an important idea for educated people in general, but it is especially important for teachers, who may do great harm to their pupils if they place too literal trust in unreliable measures of those pupils. The inescapable unreliability of measurement can be made vivid even to relatively immature pupils if appropriate experiments are arranged. Over and above the needs of the average person, the teacher needs to have some idea of the meaning of the conventional measures of test reliability and of the qualities to be sought in selecting standardized tests, as well as of methods of determining the reliability of teacher-made instruments.

There is an inexhaustible supply of amusing illustrations of the ordinary person's misplaced faith in the precision of his measurements. The particular episode which has grown gray in my service at this point comes from the days when I taught a high school class in trigonometry. The students had been brought up in the tradition which makes a fetish of complete accuracy and I had spent most of one period trying to blast out their belief that it was a mark of merit to carry computations to a large number of decimal places. Finally, with a yardstick scaled only to the quarter inch I measured the length of a desk with well-worn edges and stated the result as 43.4672 inches. What was their appraisal? It took them no time at all to say I was either bluffing, joking, or hopelessly stupid. The very next morning in a school assembly the high school principal read the average grade of each member of the graduating class to four decimal places. As a device for reinforcing my teaching the experience was admirable, but I fear it did not enhance the prestige of the principal in the eyes of this class.

Concomitance is a ubiquitous phenomenon but one that is not ubiquitously understood. Anyone who listens attentively for a few hours to conversation on almost any serious subject among a group of college graduates innocent of statistical training can usually pick up a choice collection of fallacies. They confuse concomitance with causation and so propose irrelevant action. They assume that a positive relationship is a perfect relationship. They express surprise that where a high relationship exists some particular individual departs from the group trend. (This particular fallacy may cause a teacher to demand the impossible of her pupils.) They express concern because the offspring of brilliant parents are less brilliant than those parents. They think the child who has the highest intelligence quotient in his class should be expected to stand highest in most other desirable traits and should be censured if he does not excel. Even without the computation of a single coefficient of correlation, the underlying idea of regression could be made clear enough to correct this sort of fallacious thinking.

At the present time nearly every teacher knows a great deal that is not true about the normal curve and uses it in a pseudo-scientific fashion which does no good either to him or to his pupils. It would be a service to replace these erroneous beliefs with something less pretentious and more defensible.

Almost everyone who reads the newspapers is now familiar with the various opinion polls and so has some vague idea that the observation of a relatively small number of randomly selected individuals can in some mysterious way provide information about the characteristics of a vast population which has not been observed at all. This is an exciting idea. Even more surprising to most people is the fact that the sample can also be made to furnish information regarding the value of the population estimates made from its data. To most laymen this sounds like a bit of abracadabra. Yet it is of real practical importance that the layman understand something about the business of drawing samples and making inferences from samples. Few people get through a day without making some sort of decision based upon a sample. The cook samples a pudding to see whether it needs more sugar, the swimmer dips an exploratory toe into the water to sample it for temperature, the physician generalizes about the incidence of a particular malady from the patients he has examined, the parent uses his experience with one or two children as basis for general opinions regarding the probable effect of certain methods of discipline, the businessman tries to project his past experience into the future, the manufacturer examines samples of his product to see whether the process is satisfactory, the legislator must decide upon appropriations for making studies of unemployment, of agriculture, of cost of living, of the volume of retail sales (and when these studies are made he must understand their implications for further legislation), the teacher uses her accumulated experience with children to guide her in dealing with a new group of pupils, and everyone is continually trying to draw inferences about the behavior of other people from the limited and biased sample of people who have come under his personal observation. The educated person—especially the teacher—needs to become sensitive to sources of bias in any sample on which he is depending for information, needs to know that sampling has become a highly technical business, and that if he plans to make an important study utilizing sampling he must study the pertinent literature or consult an expert, preferably both.

It is an enlightening experience for the student to take part in the actual drawing of random samples from a known population, to see the variability among the statistics, say the means, of these samples, to see a sampling distribution take form, and to learn the import of randomness and the relation of sample size to precision of estimate. After such an experience he is never quite the same, for he has discovered that while variation and uncertainty are universal, yet under the apparent confusion lies a measure of uniformity. There are relationships which dominate the swarming inconsistencies, there are limits beyond which the uncertainty does not pass. The student who has once caught the idea of what a sampling distribution is will ever afterward see a kind of ghostly distribution hovering behind any statistics which may be quoted. Told that a difference is thus and so he will always ask a mental question, "With how much margin more or less?"

Sir Charles Darwin, in his Presidential Address to the Mathematical and Physical Science Section of the British Association in 1938, expressed the hope "that generations will grow up which have a facility that few of us at present possess in thinking about the world in the way which the quantum theory has shown to be the true one. The inaccuracies and uncertainties of the world will be recognized as one of its essential features. Inaccuracy in the world will not be associated with inaccuracy of thought, and the result will be not only a more sensible view about the things of ordinary life, but ultimately, as I hope, a fuller and better understanding of the basis of natural philosophy."

Education and Economic Characteristics

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In a previous article[1] the present writer examined the relationship between the grade status of children and the rental value of the homes they lived in. This article indicates a few major generalizations which can be drawn from a further census study dealing with the educational attainments of adults classified not only by the rental value of their homes but also by occupation and income.[2] It is impossible in the scope of a single article to reproduce much of the voluminous statistical data presented in the Census volume. Major emphasis will be placed on the generalizations, which are quite important from the point of view of education. All the data published pertain to the following age groups: 18 and 19, 20 and 21, 22 to 24, 25 to 29, 30 to 34, 35 to 44, 45 to 54, and 55 to 64, for each sex and for whites and Negroes by regions. For the most part the variations by sex are of slight significance and except where this is not the case, the data for males only will be used, in view of the fact that more than three times as many males as females are gainfully employed.

EDUCATION AND HOME OWNERSHIP

It is clear that despite the cultural pattern of home renting in large cities, a vast number of non-farm Americans still own their own homes—nearly 47 per cent of the native white population in 1940. Moreover, home ownership increased with age. For the two oldest groups the ratio of home ownership is 55.7 and 62.5 per cent respectively. It is also clear that the more education a person has the more likelihood there is of his owning his home. In all but the two oldest age groups the proportion of those with high school graduation or better who own their homes is above the average for the age group as a whole. In the two oldest age categories the break comes at grade school graduation or higher. Obviously, these were persons who finished school before World War I, when simpler conditions prevailed. They have also had more time than younger people to acquire their homes. Except for the older groups, 45 years of age and above, the proportion of college graduates owning homes does not show marked variation from the proportion of those who had only one to three years of college education. This may reflect the urban conditions under which college graduates tend to live. It also seems to indicate that at some time in America's not too distant past high school graduation did open the doors of opportunity as measured by home ownership.

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[1] "Educational Attainment and Economic Status," *Teachers College Record*, January, 1948, pp. 242-50.

[2] Bureau of Census, *Educational Attainment by Economic Characteristics and Marital Status: 1940* (Washington: 1947), p. 226.

The northern and western regions of the United States conform to the national pattern just stated for native white inhabitants. In the South, however, white people 35 years of age and over who have graduated from grade school, that is, the eighth grade, or those who have had from one to three years of high school education, own their homes in greater numbers than the average of their age group.

As would be expected, the data for Negroes are strikingly different. In the first place, the proportion of this race owning their own homes in 1940 was only about one half as large as that of the white race, 23.9 per cent, though it had risen to 33.6 per cent by April 1947. In the next place, grade school graduation is the critical point for the Negroes everywhere. In every age group those with this much education or more own proportionately more homes than the group as a whole. The poorly educated Negro has even less chance within his own group to achieve home ownership than the poorly educated native white. There are far sharper variations among Negroes than among white people in this particular as the individual goes up the educational ladder. Indeed, in the upper age brackets college trained Negroes own their homes almost as frequently proportionately as similarly advantaged white families.

EDUCATION AND RENTAL VALUE

The owned home, of course, may be a palace or a hovel. The Census therefore compares the actual or imputed rental value of all dwelling places by educational status for the same age groups. In this respect, in all regions the higher standards of the college-trained person stand out, as Table I makes clear. In it the median rental of the age groups which have the lowest and the highest rental value in each educational category are given. Until college years the lowest group is usually the youngest; the highest, the oldest. In the two college categories, however, the younger people often pay more rent than the older. Whether this reflects higher standards on their part or whether an appreciable number of older people possess property in deteriorating neighborhoods, it is impossible to say. In comparing the white and Negro rents, some allowance should be made for the fact that a majority of Negroes still live in the South, and rents are lower there than in the other regions.

It will be noted that the lowest median in one educational group is usually also lower than the highest median of the group just below it on the educational scale. The age factor largely accounts for this.

The Census gives these data by cities of several size groups and for the rural non-farm population. The trend is the same in all six categories, though rural non-farm rents are significantly lower than those of any urban category.

TABLE I

REGIONAL RANGE IN MEDIAN MONTHLY RENTAL VALUE OF HOMES BY EDUCATIONAL STATUS FOR THE UNITED STATES, WHITES AND NEGROES, MALES, 1940*

EDUCATIONAL STATUS	WHITES		NEGROES	
	Lowest Median Rental	Highest Median Rental	Lowest Median Rental	Highest Median Rental
No Schooling Completed	$ 8.86	$12.63	$ 5.51	$ 7.35
1 to 4 years	6.34	13.26	5.48	8.39
5 and 6 years	9.42	18.49	6.80	11.96
7 and 8 years	15.72	26.10	9.42	17.19
High school, 1 to 3 years	16.31	30.77	11.01	18.92
High school, 4 years	23.55	40.49	15.05	21.85
College, 1 to 3 years	33.11	42.68	18.70	23.48
College, 4 or more years	40.88	58.24	20.86	25.14

*Source: Bureau of Census, *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Tables 3 and 5. Washington, 1947.

TABLE II

PROPORTION OF NATIVE WHITES 18 TO 64 YEARS OF AGE IN SPECIFIED MONTHLY RENTAL CATEGORIES BY EDUCATIONAL STATUS

AGE GROUP	COLLEGE GRADUATES		FOUR YEARS OR LESS SCHOOLING	
	Under $10	$50 and over	Under $10	$50 and over
18 to 19	3.0	38.0	63.8	3.6
20 to 24	0.2	47.9	63.4	0.2
25 to 29	0.2	32.2	63.5	*
30 to 34	1.7	61.3	56.8	1.9
35 to 44	1.7	50.9	49.9	2.2
45 to 54	1.7	58.8	39.9	3.8
55 to 64	2.6	56.4	39.4	4.1

*Less than one-tenth of one per cent.

Source: Computed from Table 3, *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Bureau of Census, Washington, 1947. Text statements based on this and following tables.

The Census gives not only the median monthly rental paid but also the numbers in each educational category who pay rents or have an imputed rental value of an owned home falling in each of seven categories from under $10 a month to $75 and over. These data follow the pattern that would be expected from the data on median rents. A startling contrast appears when the extremes are compared. This is done in Table II, where the proportions of college graduates and those having four years or less of schooling (who fall in the highest and lowest rental categories respectively) are given. Nationally speaking and for all age groups, less than 2 per cent of the college graduates live in homes with a rental value of under $10 a month, as against about half of those with four years or less of schooling.

Well over one half of the college graduates have homes renting at over $50 a month as against about one in 50 of those with little schooling.

The significance of this table is better understood when it is remembered that up to the time of the 1940 census half or less of the youth with the mental ability to go to college were financially able to go. Admitting that many who did go and who graduated had superior economic advantages, nonetheless in a nation-wide census involving tens of millions of persons the results indicate that education has an economic value, if amount of rent paid is an index of economic status, as the writer assumes. Again, the urban and rural non-farm results, if separately presented would conform to the national pattern of Table II though with less variation for the latter because rural rents are lower than urban.

EDUCATION AND EMPLOYMENT

The results of the 1940 census still reflect the influences of the depression. The WPA was about to be abolished but at the time of the Census enumeration there were still people doing emergency work or seeking employment. People in these two categories, plus those fully employed, comprised the labor force as defined by the Census. Was education associated with employment? A number of WPA research studies indicated that the better educated individuals were under-represented among their clients, and this national study confirms the conclusion emphatically. For both sexes, and in all but the two youngest age groups, from over 90 to over 97 per cent of the college graduates in the labor force were employed. Those with one to three years of college were only a point or two behind, while those with less than five years of school were often 15 or 18 percentage points lower than the top educational categories. The same result obtained for Negroes above 30, and especially above 35, years of age. Below that the unskilled Negro laborer brought up the proportions of employed among the educationally disadvantaged. The Negro with one to three years of high school in the younger ages in the labor force apparently had more difficulty than those with more or less education in getting a job. The proportions of Negroes employed within the total labor force were below those of the white people in every educational category and the points of difference between the high and low groups were not so great.[3]

EDUCATION AND OCCUPATION

Since the qualifications for jobs differ, the proportions of persons with specified educational backgrounds will similarly differ according to the occupation they follow. Thus, professional and semiprofessional groups have a high ratio of persons with college experience. The census data available on this point give some indication, however, of the degree to which this very broad category, including such diverse occupations as those of doctors and actors, is open to other than college graduates. It also indicates the degree to which nonprofessional occupations have attracted college trained persons. Tables IIIA and IIIB present some of the data on this point for several of the nine over-all categories used by the Census.

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[3] No tabulated data are presented on this point, as the generalizations drawn simply confirm other studies. Source data are to be found in Tables 17 to 20 inclusive, pp. 73-102 of *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Bureau of Census, Washington, 1947.

TABLE IIIA

PERCENTAGE OF NATIVE WHITE MALES WITH SPECIFIED EDUCATION IN PROFESSIONAL AND BUSINESS OCCUPATIONS BY SELECTED AGE GROUPS*

AGE GROUP	PROFESSIONAL AND SEMIPROFESSIONAL			PROPRIETORS, MANAGERS, OFFICIALS		
	College or More	Some College	High School	College or More	Some College	High School
25 to 29	60.5	15.9	14.3	13.6	16.6	41.1
30 to 34	62.2	14.6	12.8	14.3	16.0	30.3
35 to 44	59.6	13.8	12.0	11.6	13.9	24.4
45 to 54	55.6	15.0	11.8	9.4	11.2	21.3
55 to 64	55.9	13.8	11.5	7.7	9.1	19.0

TABLE IIIB

PERCENTAGE OF NATIVE WHITE MALES WITH SPECIFIED EDUCATION IN FARMING AND CRAFTS BY SELECTED AGE GROUPS*

AGE GROUP	FARMERS			CRAFTSMEN		
	College or More	Some College	High School	College or More	Some College	High School
25 to 29	0.8	3.4	18.1	1.9	6.0	29.0
30 to 34	1.0	3.6	12.7	1.6	4.8	24.1
35 to 44	1.1	2.9	6.5	1.1	3.6	12.8
45 to 54	1.1	3.0	4.2	1.1	2.8	9.5
55 to 64	0.9	2.7	3.6	0.8	2.7	8.7

*Source: *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Table 21, pp. 103ff. Bureau of Census, Washington, 1947.

The differences between the sum of the three items given for each occupational category by age groups and 100 equals the per cent of persons in that occupation with less than high school education.

Several things are clear from these tables. Except for the youngest group used, the amount of education tends to decline slightly with age. Presumably many of the 25- to 29-year-olds are still in the process of completing their education. This is especially true of teachers, who in many states can obtain certification on normal school graduation or even less, one to three years beyond high school. This is the largest single professional group in the United States and the practice of continuing formal education while teaching would influence the data. The increased proportion of college people among the younger business group is noteworthy. The small proportion of farmers with college experience despite the large number of graduates from agricultural colleges is doubtless due to the large proportions of these graduates who go into professional work in the Agricultural Extension Service, other federal and state agencies, and the colleges themselves. Group by group, those in the Census category of "clerical, sales and kindred workers" run two or three percentage points behind the business group in the three educational categories used. For farmers, operatives, service workers, farm and other laborers, the modal educational achievement is 7 to 8 years.

When the male workers are considered by urban, rural non-farm, and farm residence, the trend is the same as that given. However, the city has a slightly higher proportion of persons with better educational experience; the rural non-farm group has a slightly lower proportion than the national average given above; the rural farm group is sharply lower in the professional category (about 10 points), due again to the status of school teachers.

The trends among women follow those for males but tend to lag behind them, especially with respect to professional service, where the fullest effect of the lack of training of the rural "schoolmarm" is to be seen. But clearly, for women also standards are rising though not so rapidly as for men. Of the 25- to 29-year-old professional and semiprofessional workers 66.4 per cent have had one or more years of college. Over 80 per cent of the clerical and sales workers 22 to 24 years old and over 72 per cent of those 25 to 29 were high school graduates or better in 1940, as against 45 per cent of those 55 to 64 and 47 per cent of those 45 to 54 years of age.

Negroes also conform to the national pattern but lag some points behind in the proportions with college or high school education in the categories normally having appreciable proportions of people so trained. There is little evidence in the Census returns, however, that in 1940 better educated Negroes were being forced into less advantageous occupational categories. There were, for instance, proportionately more whites than Negroes with college experience in the category of non-farm laborers in almost all age groups.[4]

EDUCATION AND INCOME

The 1940 Census gathered data on income from wages and salary. Data of this type had never before been secured. There was some opposition to the question, and in the judgment of the writer not all of the technical problems involved were wholly solved. The year covered was, of course, 1939 when many persons in the labor force had no earnings because of unemployment. The category "None" in Table IV includes also retired persons and housewives. In relating income to educational status, only the groups earning more than $1 and less than $1,000 and from $3,000 to $4,999 and over $5,000 have been chosen. National figures only have been used, though data are

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[4] Regional data are given on these items in the Census for both races, but these have not been analyzed.

TABLE IV

PERCENTAGE OF NATIVE WHITE AND NEGRO MALES AND FEMALES 18 TO 64 YEARS OF AGE IN SPECIFIED INCOME CATEGORIES: 1939

INCOME CATEGORY	NATIVE WHITE		NEGRO	
	Male	Female	Male	Female
All groups	*100.0	100.0	100.0	100.0
None	13.5	65.8	14.4	55.9
$ 1–$ 499	19.2	10.8	44.9	32.5
500– 999	20.7	10.5	27.9	6.4
1000– 1499	18.5	4.7	8.0	0.6
1500– 1999	12.5	1.5	1.6	—
2000– 2499	6.5	0.5	0.6	—
2500– 2999	2.4	—	—	—
3000– 4999	2.7	—	—	—
Over $5000	0.9	—	—	—

*Difference between total of percentages and 100 per cent equals the percentage unreported.
— Less than one-tenth of one per cent.

Source: Computed from Tables 29 to 32, pp. 147–68 of *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Bureau of Census, Washington, 1947.

TABLE V

PERCENTAGE OF NATIVE WHITE MALES OF SELECTED AGE GROUPS IN SPECIFIED WAGE OR SALARY INCOME CLASSES BY EDUCATIONAL STATUS

AGE GROUP AND EDUCATIONAL STATUS	ANNUAL INCOME CLASS		
	Less than $1000	$3000 to $4999	$5000 and Over
30 to 34 years			
Less than high school	49.4	2.1	0.2
1 to 3 years high school	32.1	1.5	0.2
4 years high school	22.1	3.1	0.5
1 to 3 years college	17.9	6.0	1.4
4 years or more college	7.8	17.7	3.1
35 to 44 years			
Less than high school	40.2	1.7	0.6
1 to 3 years high school	25.1	4.2	0.9
4 years high school	16.3	8.5	2.5
1 to 3 years college	14.2	12.7	4.2
4 years or more college	6.9	23.9	9.9
45 to 54 years			
Less than high school	38.4	2.6	0.5
1 to 3 years high school	17.0	6.4	1.7
4 years high school	16.6	11.8	4.6
1 to 3 years college	16.3	13.6	6.0
4 years or more college	7.6	21.9	16.0
55 to 64 years			
Less than high school	42.3	2.2	0.4
1 to 3 years high school	30.5	5.3	1.5
4 years high school	21.4	9.6	4.3
1 to 3 years college	15.5	13.5	3.0
4 years or more college	12.9	19.1	13.4

Source: Computed from Table 29, pp. 147 ff of *Educational Attainment by Economic Characteristics and Marital Status: 1940*, Bureau of Census, Washington, 1947.

available for cities of various sizes and for farm and rural non-farm populations. The comparison further has excluded all persons with unearned income.[5] Obviously, these wage data include many persons employed part-time, such as harvest hands, students working only in the summer, and rush season clerks. They do not measure annual wages of the United States labor force in 1939, but the trends as related to education have significance.

For purposes of comparison the proportion of persons in each income category is first given without regard to educational status.

When these data are distributed by educational status, the divergences from the over-all national averages come into sharp focus, as Table V shows. Well over two in five of the nearly three million native white males 30 to 64 years of age who failed to enter high school were earning less than $1,000 in 1939, whereas more than 10 per cent of the nearly 700,000 males who had had a full college education or more exceeded $5,000 in earnings and about one-third exceeded $3,000. Much larger proportions of the better educated also had other income. The data on education and income thus confirm those already given for the rental value of homes occupied, and reinforce the generalizations that are there made.

It would be unwarranted to claim that the better the education the better the income is a generalization which would hold for every individual. The trend, however, is clearly in that direction. The data lend support to the statement that investment in human beings through education brings a significant economic return.

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[5] The importance of this may be seen from the fact that, for instance, among the college graduates 55 to 64 years old little more than one third reported only earned income, almost two thirds had "other," non-earned income. Others were obviously earning on a semi-retired basis.

The Reconstruction of Arts in Education

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> WE can have no genuine civilization in the finer meanings of that term until our extraordinary development in science, technics, and knowledge is balanced by a like development in the arts and a wide distribution of the experience-values inherent therein.—RALPH PEARSON, *The New Art Education*, p. 5.

ONE of the essential ingredients in man's everyday living is found in the arts. The synthesis of feeling, mind, and hand through art activities pierces the richest and deepest stratum of human experience. Arts not only contribute to mere existence; they are the means by which man rises above it. Indeed, without experience in the arts, man's growth is limited and lopsided.

NECESSITY FOR RECONSTRUCTION

Everyone is capable of growth through arts experiences. To some degree, everyone is creative. Through feeling, sensing, imagining, thinking, reasoning, and inventing, people can bring ideas, plans of action, and objects into being. Arts afford opportunities for activities through which people can change their environment, themselves, and their way of life. Failure of our schools to provide opportunities for creative growth through arts experiences is an obstacle to human development, progress, and happiness.

Discerning educators (and they are in an effective if not a numerical majority) verbally but often passively support the arts in education. The measure of an educator today, however, should be in what he is doing. It is a regrettable fact that in many cases well-meaning educators, administrators in particular, do not know what to do. In their professional upbringing they missed many of the opportunities which this discussion will consider. Some teachers and supervisors in the arts "came up" by an outmoded route. The leadership which should flow from our colleges and universities is not generally forthcoming, witness the status of teacher training in the arts in educational institutions in general.

Progress in many schools is undeniably retarded by poorly trained or mistrained art teachers or perhaps by having no art teacher at all. Many art teachers leaving their alma mater are not equipped to contribute to curriculum reconstruction. Hence, concepts underlying arts activities are frequently out of date, inconsistent with significant art values and the way human beings grow. Classroom procedures in the arts thus continue to fail to make the contribution they should to the over-all program of education.

In some instances art teachers on the job are increasing their usefulness through in-service education of one sort or another. It is a reflection on teacher-training institutions, however, when teachers fresh from the "centers of learning" find themselves inadequately trained for leadership on the job. It is not enough for colleges of education to prepare teachers to carry on prevailing practices. When the student of today leaves the campus for the elementary or secondary school classroom, he or she should have had opportunity to learn the best theory and how to employ it in curriculum development and change.

Fortunately there are some teachers at all levels of education who are able to discard what they have been taught to do. These frontier people transcend the level of education typical of their day. They pull themselves up by their own bootstraps, as it were. Administrative officers should be quick to recognize these leaders and aid them in their struggle to improve the character and quality of learning situations. These people frequently have grasped the significance of modern theory and are able to devise ways to implement it into practice. They are the artist–teachers. But these relatively few changes in the all-round curriculum are insufficient to reconstruct the merry-go-round which goes on training teachers to continue status quo practices which in turn require more recruits.

Every thinking educator knows that one of the most crucial issues in education today is a thoroughgoing reconstruction of the curriculum, not thin wedges here and there. There should be widespread acceptance of modern concepts, new types of organization and procedure. The need for reconstruction in the arts is as great as in other parts of the curriculum.

PLANKS IN RECONSTRUCTION OF THE ARTS

The starting point in a plan for reconstructing the arts is the revision of our ideas about several of their aspects. In the first place, there are many ideas regarding what art is, or should be, in the growth process.

The meaning of art. In art, as in other things, if we are concerned with the development of a person, we must start with the person, not with a subject as such. Art is what happens to a person through an experience—an effective, creative experience derived through the interaction of a person with an art medium or form. Art is a happening in a person usually resulting in a product of some form. The arts are avenues through which a person may feel, think, and participate creatively in his own original and unique way and to his own satisfaction.

As appreciation, an art experience may be listening to music, watching a play, studying a picture, enjoying a dress or an attractively set table, touching a piece of pottery, woodwork, leather, or a myriad of other things for which the person has a feeling and a growing understanding. As doing or making, it may be designing and painting a picture, writing a piece of music or a play, casting aluminum, singing a song, acting in a play, chipping marble, designing and making a dress or a piece of pottery. Art does something with physical material—the body or something outside the body—with or without the aid of tools and with the aim of producing something tangible, visible, or audible. The medium does not determine what is art and what is not. Painting a picture can be a dull, sterile ordeal or a highly creative experience, depending upon the theory and method employed by the teacher. The same can be said of designing and constructing a table or spinning a bowl. The many types of art activity are expressions of similar creative impulses. They differ because they are created from different materials and under different conditions at different times. The desire to bring order to existence and the will to express ideas and to satisfy desires and needs are the underlying principles permeating them all. As a means of clarifying the view of the student and making it easier for him to cultivate a healthy attitude, the arts should be presented as one large field of human endeavor and opportunity.

Divisions in art media. The archaic divisions between the so-called fine arts, industrial arts, home arts, theater arts, arts and crafts, and the like, each segmented into subjects and subsubjects, are based on false assumptions, values, and objectives. These divisions are wholly imaginary and superfluous. The arts were not separated in early cultures, particularly in Greece where they flourished, permeating the daily living of the citizenry. In primitive cultures, those gone and those extant, the arts were and are integrated. Divisions are rooted more in custom and vested professional interest and expediency than in educational philosophy or the psychology of learning. There is nothing intrinsic in the arts themselves or inherent in the individual to warrant segmentation of the arts or to set them apart from life, as is currently done.

Limitations imposed by division. As an abstract argument, divisions in arts media are not important. But these divisions tend to limit the functions of the arts. Educational theory stresses unity of the individual and the development of the whole person. The democratic process, ideas, interests, problems, and concerns of students are given preference over the mastery of fragments of subject matter. Skills, techniques, and bits of knowledge are superseded by the creative process. Integrating environmental situations is generally accepted, in theory, as a means of developing internal unity. And it is an American tradition that *all* boys and girls should have equal opportunity for growth.

Divisions in the arts run counter to these ideas. Segmentation narrows and limits opportunities for broad creative endeavor. It gives students false ideas regarding the place and function of arts in daily living, particularly in home life, business, and industry. This occurs during adolescent years, when attitudes which will continue into adult life are being developed.

Boys and girls are usually segregated, corresponding to divisions in the arts, limiting the resources and opportunities for all. Usually, it is possible for the student to become acquainted with only a few of the numerous diversified media. Frequently, unhealthy rivalries are stimulated in teachers, students, and parents. To an alarming degree, divisions, the subject approach, and imposition as a method continue to characterize art education.

A point of departure. The subject approach to the arts goes hand in hand with segmentation. Content of the subject generally consists of a list of specifics drawn from an analysis of adult activities. Imposition is the method natural to the subject approach. The student is required to begin with segmented elements rather than with their creative aspects. And all this is at a time when the adolescent longs for a panoramic view of broad horizons.

If ideas, interest, concerns, and problems of students young or old as seen by students themselves (matters relating directly to daily living in school, home, community, industry, and the broad world neighborhood) were substituted for predetermined subject content as a starting point in stimulating the activities, growth through the arts would take on a new vitality. It is natural for the creative mind in the throes of creative activity to reach out and grasp any material which stirs it. Much that is currently stressed as subject content would be drawn upon and employed as dynamic resources in the creative process. Ideas, interests, and problems of the student should be the guide to the selection of media and the perusal of artistic processes. This is the key idea. This limitation is not restrictive. The only inherent requirement in the work of the student is the necessity for sincerity. The student must not copy, fake, or compromise his interests and integrity. In the process of sensing and feeling, designing and creating, imagining and thinking, appreciating and expressing, manipulating and constructing, the student, with one stroke, would wipe away the impractical, educationally foolish barriers and procedures now in his path. More than that, chasms between divisions, into which many art values have fallen and been lost, would yield up their treasures to broaden and vitalize art experiences. Arts media in endless variety could be brought together in a functional arts center, to be drawn upon by students in the process of creative, artistic living. Integration of the arts in school as they are, or should be, in life is a prerequisite in curriculum reconstruction.

Art and craft. Art and craft function together, even in the realm of appreciation. Each has its values. Either may be emphasized appropriately according to purposes and circumstances. Functionally, the two are inseparable.

For purposes of analysis, art relates to the sensory, aesthetic, imaginative, thinking, visionary, ordering ingredients in creative experiences. Craft is the producing part of the process functioning through manipulation and the use of skill, technique, and knowledge. In life's activities the two are fused.

In the educative process, creativeness (art) should be emphasized over craft. Creative qualities and impulses are thwarted through recourse to copying or imitating, imposing adult purposes and standards, overstressing skill and technique, unduly emphasizing the intellectual aspects of behavior, and forcing art activities to emphasize craft as a means of pseudo-integration of art with other subjects.

Teaching, therefore, must beware of the pitfall of emphasizing production based on prefabricated plans of any sort. Good teaching is built on establishing a high standard of human relationships. Democratic teacher–pupil planning, teacher stimulation, suggestion, encouragement, counseling, and drawing out and inspiring the student should necessarily characterize classroom procedure. Teaching, first of all, should be a partnership to which both students and teacher contribute. Traditional, vertical hierarchies thereby swing into a horizontal position in which the integrity and personality of all are respected. Growth through art requires this favorable environment. Indeed, art, freedom of spirit, and democracy have a great deal in common.

Art, aesthetics and intellect. In employing the arts as a means of human enjoyment, satisfaction, and development, a theory is sometimes expounded which would serve to separate emotional and intellectual components of behavior. The purpose that such a view endeavors to justify is acceptable, but the explanation is based upon an outmoded theory of psychology. It calls for a type of behavior that exists only in abstractions foreign to dynamic psychology. Intellectual experience devoid of feeling really does not occur. Conversely, in intelligent behavior there is no such thing as pure emotion. A person no more leaves his intellect behind when he enters an art situation than he ceases to feel when he enters a science or mathematics class.

We have Dewey's word for it that "only the psychology that has separated things which in reality belong together holds that scientists and philosophers think while poets and painters follow their feeling."[1] The difference between emotion and the intellect at any moment in behavior is a matter of where the emphasis falls in the rhythm denoting the interaction of the person and his environment. It is a mistake to assume that a difference in tempo and emphasis is a fundamental difference in kind of behavior. In art, by virtue of the nature of things, the student is more immediately connected with ultimate ends. He does his thinking and feeling as he interacts with his media. He is so close to the objects he is creating that these qualities merge directly into it. In the abstract, scientists or mathematicians usually work toward more remote ends. But this signifies a difference in tempo of behavior, nothing more. Thinking, feeling, and acting are abstract terms useful in analytic procedures to serve specific purposes, but in reality such elements are never separated at all. There is unity, not conflict, of the aesthetic and the intellectual qualities of behavior. No functional dichotomy can be allowed to exist in reconstructing arts programs. Theory that overemphasizes emotional or intellectual components of arts experiences causes confusion as to the nature of art and is harmful in its effects on art instruction. It unduly restricts the criterion guiding art work and neglects the dynamic intellectual qualities pertinent in art activities. To assume that emotion is the whole of the vocabulary of the arts is as naive as it is damaging.

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[1] John Dewey, *Art as Experience* (New York: Minton, Balch and Company, 1934), p. 73.

Integration of arts and other educational activities. Many kinds of activities exert significant influences upon the development of an individual. These activities know no subject-matter boundaries. They flow together naturally if not arbitrarily kept apart. The environment affects the total personality—either for good or for bad. Control the environment and you can shape personality. Integrated learning situations afford the student opportunity to expand his environment and to select and organize his experiences within it on a sound psychological basis. Arbitrarily imposed restrictions tend to warp and sterilize experience. Integration of arts and other educational activities, as ongoing planning and work require, is an adequate means of stimulating and facilitating all-round growth of personality, which, in turn, regulates behavior. These considerations are far more significant than contentions that art deals with one hemisphere of human life and academic subjects with another.

A denial of integration frequently is rooted in selfish allegiance to subject matter, vested interests of pseudo-professional teachers. In other cases it rests upon ignorance, lack of know-how, or inability to work on a horizontal, professional plane with other teachers, students, and parents. Rationalization is substituted for professional interest and action. Many teachers feel insecure, once outside their protective sanctuary. The same people who are content with orthodox divisions between the arts and other subject fields are likely to argue for similar divisions in the arts. They are essentially subject-matter minded individuals. But in reconstructing the curriculum we need not continue to sacrifice zestful living upon the altar of the subject.

Some arts people will defy integration on the basis of the historic "handmaid" bugaboo. If this skeleton should take on flesh and blood it would be because of dominating hierarchial procedures as opposed to intelligent democratic teacher–teacher and teacher–pupil planning. There are pitfalls in integration as a procedure, but it is likely that these are little different from those in procedures along more archaic, traditional lines, and no more difficult to overcome.

RECONSTRUCTION IN ACTION

Suppose that the foregoing is to serve as a foundation for reconstructing the arts in the curriculum, what then? What would be done? What would the functioning arts program be like, what would it require, and how would it operate? Only an incomplete verbal picture is possible here.

Opportunities for all. The school would provide arts opportunities for all boys and girls from the time they entered school until they completed the twelfth grade. The principle that in a broad, diversified, integrated program any individual would find something to his liking would be invoked. Individuals differ regarding what things interest, challenge, and satisfy them. This is as true in the arts as in other parts of the curriculum. But special aptitude need not be a serious problem. What the student omitted in one direction he would get in another. Not a specific activity for all, but several types of arts activity for everyone would be the aim.

Emphasis on general education. A rapidly changing, insecure atomic world has thrust manifold responsibilities upon the younger generation of today. Necessity for helping students grow up with creative, versatile minds, emotional stability, and dynamic attitudes and outlooks serves to throw the spotlight upon general as opposed to vocational education in the American high school.

Functions of industry itself, in a rapidly changing society, are coming to rely upon versatile, flexible employees as opposed to those narrowly trained in relatively few specifics. Given people with creative attitudes and versatile habits, industry can train the individual on the job to perform a specific task quickly and expediently. Obviously, *training as such* is no longer a major function of the secondary school. Current emphasis on *training* for a large portion of high school youth must be superseded by activities designed to improve opportunities in *general education* for all boys and girls.

In the reconstructed arts program, the purpose would be to stimulate personal, emotional, intelligent, aesthetic growth; to give each and every student personal satisfaction in as many media as possible through artistic creative activities. Therefore, artistic creation, invention, experimentation, participation, and functional appreciation on an ambitious scale would characterize work in all aspects of the arts. That the individual (his home, college, economic and social life) is better served would be the underlying assumption.

Cooperative, coordinated arts staff. An arts program built around the concepts expressed in this article starts with a staff whose members cooperatively develop a central principle, a common point of view, and common, consistent purposes and practices. These people would strive day by day to learn better how to bring a unified influence to bear upon the whole complex situation. Specific plans and procedures may vary from school to school, but the important thing is that there would be a pooling of efforts and resources toward common, intelligible purposes.

Not all qualities essential to initiate and carry out a wide range of work in an integrated arts program need to reside in a single individual. As a group, however, the arts staff would be prepared to meet adequately the demands of any situation in any arts medium. The attributes of each member would supplement those of others. All would be able and willing to work cooperatively. This is the key idea in the functioning of the whole program, and it is chiefly in this connection that the difficulty now exists.

Where can arts teachers with this point of view and with diversified training in methodology and know-how be secured? Colleges and universities are not training them, although they should. Teachers are still being trained to teach subjects—to stress skills and techniques over and above the creative process—rather than to teach cooperatively in an arts workshop or arts center.

But, as mentioned earlier, there are some teachers in service who transcend their training. These alert men and women build their philosophy and method upon the discarded debris of earlier training and experience. They have "bolted the party" and struck out on their own. It is to these people that we would look for leadership. What a challenge to teacher-training institutions!

Space, equipment and supplies. The time is at hand when school architecture must be considered a significant and decisive element in education. If the arts are to function properly and adequately in the program, an arts center is essential. The arts center would be arranged architecturally to facilitate the closest possible relationship of all arts activities, at the same time (through roll-away walls and the like) allowing for expedient rearrangement of space and facilities to meet a wide range of activities. It would be easily accessible from science, social studies, and similar areas. Architecture, organization, color, and light would bespeak art in every possible way. Most equipment would be light, movable, versatile, and safe for boys and girls at various stages of growth.

Supplies would be provided in ever-increasing variety as needed to stimulate and satisfy the creative interests and sincere concerns of students. A direct relationship exists between the kind, amount, and quality of arts equipment and supplies and the kind and quality of education possible. It is not at all uncommon for a dollar spent in arts to contribute more to the growth of a boy or girl than the same amount spent for an academic textbook. Both arts supplies and textbooks are needed.

There would be something to challenge and bring satisfaction to everyone. The arrangement and availability of materials and supplies would be in keeping with respect for the person, his integrity, honesty, and personal dignity. Human relations on this level beget growth through arts. Convenient and accessible arrangement facilitates activities with a minimum of stress and strain on all concerned. The arts center would "set the stage" for functional growth through a myriad of arts activities in all aspects of daily living.

New buildings should be designed and constructed in accord with the demands of the "modern school." Many school buildings can be redesigned and remodeled to facilitate the changing curriculum. If the basement must be used in overcrowded schools of today, the arts should be the last, not the first, part of the curriculum to be placed there. Administrators and board members are prone to think in traditional basement-arts terms. (The writer has had several teachers come to him with problems of this kind within the past year.) Even an uninformed person, not to mention educational leaders, is likely to know that art and a basement setting are entirely inconsistent. As a suggestion to thinking people, if basement quarters must be used for class purposes, they should be remodeled, employing art as a means, to accommodate some other part of the curriculum.

Time. We have been prone to lose sight of the time factor in education. If the arts are to bear effectively upon personal development, time for them to function must be provided in the program. In many instances, arts activities are narrowed, thwarted and, in effect, sterilized because so little time is allotted them. Unfortunately, traditional program schedules are not in accord with the interests, emotional drives, and satisfactions of students.

Expediency in current arts programs is a curse upon human development. The nature of the individual and the nature of arts experiences are ignored. It is not unusual for the individual to be busy starting and stopping. Work must be started quickly, done rapidly, finished on time! "Projects" must be turned out. The student is assigned a period here and there. He is a slave to a schedule punctuated by the eternal bell. Work is crippled and distorted, and so is the student.

Frustration can but replace potential satisfactions under such an arrangement of the school day. At least 20 per cent of the day should be devoted to the arts, and a ruinous schedule should not be permitted to chop up this time and destroy the effectiveness of the arts by throwing them into conflict with the emotional life of the student. It takes time to grow a human being.

Therefore, blocks of time should be made available to arts just as they are to laboratory work. Regular schedules, flexible blocks of time, free time, and time coinciding with other curricular activities of a core or community nature would characterize the arts program. This latter arrangement would facilitate integration on a broad basis.

Procedure. To achieve educationally significant values, a democratic atmosphere should characterize the arts center; a spirit of responsible, self-directed freedom should prevail. Freedom to imagine, think, and feel deeply and honestly is the tap root of arts activities through which people grow in richness of personality. Sincerity in behavior is essential to a valid form of creative endeavor.

The collective staff would help groups and individuals initiate work in a variety of ways with emphasis on cooperative planning involving the students, arts staff, other staff members, and laymen. Actually, implementing and carrying through specific activities would employ large-scale individual and small group teacher–pupil planning and cooperation. Free choice, under guidance, would be a central principle.

Sources of arts activities are as broad and complex as life itself. Life in all its aspects, then, is both the root and the flower of the arts in the program. Actually, the arts are a vital ingredient in living. Instructional procedure would make that fact a significant reality in the life of all children and youth.

No teacher can afford to make living through the arts difficult for anyone. Actually, artistic creative participation in the arts is natural and, under intelligent teaching, it is easy. Teachers who make arts activities difficult disqualify themselves. They are lacking in understanding and ability to teach through the arts. In the reconstructed arts program, staff members would assist students in beginning creative work at their level of development, which is where everyone must begin anyway. Each would be encouraged and stimulated to seek satisfaction through whatever medium appealed to him.

Specificity and ruthless drilling of individuals or selected groups of students for purposes of display, performance, and narrow artificial achievement toward any end would be strictly avoided. The arts staff would endeavor to personalize arts experiences rather than standardize them. Achievement would be cooperatively coordinated if by so doing it would serve educational goals. But achievement in the arts can no more be standardized than can wholesome personality.

There is no good reason why students of both sexes and of different ages should not work together. On the contrary, there is much to be gained by such a procedure. The new program would be planned, therefore, to provide for the most flexible kind of scheduling and inter-age groupings. Child groups and youth groups would not only mix within their own age groups, as work required, but would work with more mature students, teachers in training in particular. All ages live in the family unit. And what better place is there for a future teacher to learn than with those with whom he or she will later work? This does not necessarily mean practice teaching, although it may include that. The proposal here suggests that college students, in the arts or in other areas, who are preparing to teach, work along with younger students as a part of their regular course training.

Evaluation. The above by no means signifies indifference to standards of growth; quite the contrary. The primary purpose of reconstructing the arts program is to improve and advance the effectiveness of arts experiences toward the attainment of valid goals. In the program under discussion every student would be responsible to himself, his group, and the staff to work with as much concern and sincerity as possible.

The individual's work and achievement would be evaluated in a manner consistent with his stage of development and his own purposes. Purposes would be set cooperatively by him, his group, and the staff. But it would be remembered that the only purpose anyone can work to fulfill is that understood and accepted by the person himself. Standards, like all other aspects of the process, would be personalized.

The matter of credits and accrediting would also be revised. Valid growth through artistically creative activities cannot be graded or marked in the orthodox way. And the more significant art activities are, the less such types of evaluation can be employed. If marks are used, students tend to work for them. Such an attitude on the part of students violates fundamental purposes in education, for marks are false goals. Most aspects and degrees of success, or lack of it, in the arts are audible or visible. No traditional supports in the way of marks are necessary.

As for reporting, corporate judgment and statements about developing qualities and characteristics are far more meaningful and valid than marks. Credits, if needed, would be given on a *time* basis as a substitute for standard of achievement.

Budget. To bring the impact of the arts upon the growth of a generation of young people requires more money than is now being spent on arts education. At present America spends relatively little for public school education—about 1.5 per cent of her national income. Great Britain spends twice as much, Russia almost six times as much. As a nation we spend about 6 per cent of our income for liquor and tobacco. To finance the kind of arts program discussed here may require that we divert to it some of that 6 per cent.

This article is concerned with a *reconstructed* arts program, however. Much that is spent now for so-called vocational education in certain aspects of the arts on the secondary level should be diverted into channels of general education for all students. Even so, more space, equipment, and supplies are needed. More and better trained teachers are required. But, assuming that no more money is available than is now used in the arts, much could be gained by using it toward the type of arts education herein discussed. In general, it costs more to do less through disintegrated, segmented curriculum practices. Manpower, space, and equipment go further when employed on an integrated, cooperative basis.

Conclusions. The foregoing statements are necessarily brief and incomplete. Implications (for all levels of arts education and for teacher education in particular) resulting from them and others that should be noted are many and bespeak of drastic change. These proposals are not believed to be fantastic, however, since the author and others have made some progress along these lines during the past several years. Sound psychology and educational theory as well as the salient nature and function of the arts themselves undergird the ideas and suggestions incorporated herein.

The idea and purpose back of curriculum reconstruction is to improve the development of our greatest and most precious resources—our children and youth. This task is a challenge to any teacher-educator. Time should no longer be wasted and energies dissipated correcting relatively minor flaws here and there. Age-old boundaries and rivalries should be allowed to fall in decadence as befits them. Upon these ruins should be built the new curriculum. Cooperation as well as leadership is imperative for this task, which is as stupendous as it is important.

Preparing Teachers for Driver Education

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WHEN a significant social problem arises whose ultimate solution lies in educable factors, it may be expected that sooner or later those concerned with the problem will seek assistance from the schools of the nation.

Many individuals, agencies, and organizations in this country are vitally concerned with the fact that few of us will live through the coming year without having a friend, relative, or neighbor killed or injured in an automobile accident. In this era of astronomical figures, to cite over thirty-four thousand killed and one million injured last year by automobile accidents does not reveal the true picture of economic loss, social distress, and human suffering which our highway accident tolls exact. Yet, in terms of economic loss alone, more money was dissipated last year in this one destructive channel than was spent for the support of our entire public school system.

While the social significance of the automobile accident rate may be overlooked by some, various educational, commercial, governmental, and social service agencies are actively engaged in forging weapons for the "battle of the highways." Their efforts have been directed toward improved safety devices on automobiles, traffic and highway engineering, law enforcement, driver licensing practices, and public education. Considerable progress has been made in these directions and continued improvement can be expected. The fact remains, however, that most traffic accidents are caused not by poor roads, poor enforcement measures, lack of knowledge of rules of the road, or mechanical failures of automobiles. Rather, most accidents are caused by poor drivers.

Recognition of the fact that if the accident rate is to be reduced significantly the problem of producing better drivers must be attacked has given rise to the movement to introduce driver education into the secondary school curriculum. The secondary school is considered an ideal place for driver education because, first, it reaches youths at an age when they initially seek to drive; second, it reaches the teen-age group, which has the worst accident record, those under twenty having an 89 per cent higher accident rate than all other age groups; and third, it has the best resources for providing necessary instruction.

WHAT IS DRIVER EDUCATION?

Driver education aims to develop the necessary attitudes, habits, and skills which in practice will result in efficient and safe operation of automobiles. Driver education must necessarily be concerned with such factors as the role of the automobile in our society; social responsibilities of driving, with special emphasis on the development of proper attitudes toward safe driving; physical and mental requisites of safe driving; problems of traffic safety; traffic laws and regulations; construction, operation, and maintenance of automobiles; and skills of driving. The practice in some schools of presenting only the classroom phase of driver education, omitting the actual behind-the-wheel training or learning to drive an automobile, has given rise to a duality of terms. In general use one finds the terminology *driver education* and *driver training*. Driver education denotes the classroom phase of instruction; driver training the behind-the-wheel phase. This definition cannot be defended in terms of a broad concept of the word education, but it is used here in recognition of its widespread general acceptance.

Not a little value can be claimed for offering courses in driver education without including driver training. Nevertheless, if the basic problem of reducing our highway accident toll is to be touched, driver training must be an integral part of programs of driver education in the secondary schools.

THE STATUS OF DRIVER EDUCATION AND TRAINING

When the multiplicity of problems associated with the establishment of driver education and training courses in secondary schools is considered, the first impulse is to say it cannot be done. Who will teach it? Are automobiles available? Will parents approve? Will it cost too much? How can it be included in an already overcrowded curriculum? These questions pose only a few of the practical problems that arise. Yet despite the difficulties, over eight hundred and fifty secondary schools in this country have courses in driver education and training. With the increasing availability of automobiles since the close of the war the number of schools offering these courses is rapidly growing. The New York State Education Department has recently urged the inclusion of driver education and training in the State's secondary schools. Regents' credit has been allowed, and a State syllabus has been published. At least thirty other states[1] give some types of encouragement to secondary school driver education and training programs through laws, regulations, or recommendations. These include: (1) permissive legislation or regulations regarding the establishment of driver education and training programs; (2) state courses of study; (3) the waiving of oral or written or practical driving tests for a state driver's license on successful completion of a secondary school driver education and training course; and/or (4) the provision of state supervisory personnel to assist with the development and promotion of local driver education and training programs.

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[1] American Automobile Association. *State Regulations of Safety Education in the United States.* Washington, D. C., 1947.

SUPPORT FOR THE PROGRAM

The chief impetus to the development of driver education and training programs has come from such private agencies as the American Automobile Association and its affiliates, the Automotive Safety Foundation, the National Conservation Bureau, and the National Safety Council. These private agencies have provided teaching aids, equipment, materials, and the promotional, supervisory, and advisory services of trained personnel. Programs and materials developed are based upon well-conceived objectives; sound teaching materials, progressions, and techniques; high standards of achievement; and carefully devised evaluative procedures. Resources available for those initiating courses in driver education and training are invaluable.

Educational organizations have given wholehearted support to the efforts of private agencies. They accept the fact that secondary schools are the best equipped educational agency to deal with the problems of youth, and recognize the needs of youth in the area of driver education and training. The National Commission on Safety Education of the National Education Association is actively engaged in promoting the movement. Driver education and training has been recommended and urged as an essential program by the National Congress of Parents and Teachers, leading educators serving on the Committee on Education at the President's Highway Safety Conference of 1947, the American Association of School Administrators, the National Association of Secondary School Principals, and others.

NEED FOR TRAINED TEACHERS

The administrative feasibility of introducing driver education and training into schools cannot be lightly assumed. The difficulties, however, prove not insoluble. Dual control automobiles are available by loan, rental, or outright purchase. Services offered by the American Automobile Association and various private motor companies facilitate the procurement of proper equipment. The cost of conducting the course, including teacher salary, materials, car operation, insurance, and the like, is estimated at less than thirty-two dollars per student trained, according to budgetary plans set up by the American Automobile Association. Other administrative problems involved can be readily handled by an individual trained in the area.

Actually one of the chief deterrents to the establishment of driver education and training programs is the shortage of adequately trained teachers. Training in administration of the programs and the subject matter is of course necessary. In addition, only carefully selected and well-trained teachers are capable of teaching driving skills. The greatest pitfall lies in the tendency of almost everyone who drives to believe he is a *good* driver. There is no effective way to convince him otherwise. Anyone, however, who has received instruction in the fundamentals of operating an automobile from an expert instructor cannot but be amazed at the many habits of the average driver which are mechanically harmful to the automobile and potentially unsafe. An untrained teacher selected from the ranks, even though he has a record of safe driving, is likely to pass on to his pupils basically poor driving skills. Any teacher engaged in this work *must* be properly trained and highly skilled according to acceptable standards.

PRESENT TEACHER-TRAINING PRACTICES

The majority of teachers now engaged in driving education and training have been prepared by the American Automobile Association. The influence and contribution of this organization in the field cannot be overestimated. It has been unflagging in its efforts to establish institutes in cooperation with local colleges throughout the country for the purpose of training teachers in service through short intensive courses. It has similarly promoted seminars for college instructors who wish to include driver education and training courses in teacher-preparation curricula. Attendance at AAA courses has been stimulated by the fact that the Association's dual control automobile procurement services are available to only those schools that have an instructor certified by the organization. Certification may be obtained only by attendance at an in-service course conducted by its representatives or a regular college course conducted by an AAA trained and certified instructor.

Other institutions, notably the Center for Safety Education of New York University, with the cooperation of the National Conservation Bureau, have for several years included driver education in their curricula.

THE RESPONSIBILITIES OF TEACHERS COLLEGES

The private agencies have effectively pioneered in the field of driver education and training and have maintained relatively high standards of teacher preparation. The recognition by teachers colleges, however, of the growing importance of this field and of their considerable responsibilities thereto is necessary. With an increasing number of secondary schools adding driver education and training to their offerings, it is only logical that institutions preparing secondary school teachers should assume the added function of preparing teachers who will be adequately equipped in this area.

Step I: Selecting a qualified staff member

The first step for colleges in developing teacher-preparation programs in driver education and training is to prepare or procure staff members qualified to teach driver education and training. Opportunities for college personnel to receive preparation are increasing. During the spring of 1948, for example, four colleges and universities in different sections of the country, with the technical assistance of the American Automobile Association, are conducting seminars for the preparation of college instructors in driver education and training. These include: University of California, University of Illinois, George Peabody College for Teachers, and Teachers College, Columbia University.

The college instructor in driver education and training must be carefully selected. In addition to the generally accepted criteria for a good college teacher, special qualifications are important. The individual selected must be able to meet the physical requirements necessary for an expert driver and instructor. That he can measure up to superior standards of vision, coordination, reaction time, and driving skills is essential. In addition, a high degree of emotional stability is required of the instructor who undertakes the exacting task of behind-the-wheel instruction. He must also be able to teach the subject matter of driver education, which correlates in many respects with the field of industrial arts. Specialists in that field are likely to have the technical knowledge and skill necessary for effective teaching of subject matter related to automotive equipment and for constructing and operating the various psychophysical testing devices commonly used in driver education. Specialists in safety education likewise have a good background of preparation in many ramifications of the field. Personnel from the field of physical education are sometimes selected because of their expertness in the teaching of motor skills. Regardless of field of specialization, however, the individual best qualified in terms of physical abilities, emotional stability and technical background should be selected.

The immediate need for trained college personnel in the field of driver education and training dictates the present practice of short-term, intensive in-service courses. Careful selection of those who are to take the training enhances the worth of this system. It is important that it be recognized, however, that this type of training is not wholly adequate. Graduate or undergraduate preparation in teacher education with proper emphasis in such fields as mechanical arts, psychology, sociology, political science, and safety education and engineering would characterize an adequate background for the administrator or teacher of driver education and training in teachers colleges.

Until a college has staff members adequately prepared to carry on the program of teacher preparation in driver education and training, the services of the several private agencies should be sought in offering short term courses to meet the immediate needs of local secondary schools.

Step II: Developing the program in the local college

Once a trained staff member is available, plans for developing the driver education and training teacher-preparation program in the college can be advanced. Varying local demands preclude a definite blueprint for the development of teacher-preparation curricula for all colleges. Nevertheless, certain basic considerations should guide the programs developed, though the administrative details will vary for each institution.

1. *Initial efforts should be directed in terms of time, content, and selection toward the in-service group.* The demand for in-service training will be considerable in the next few years because of rapid growth of the driver education and training movement. Until the demand and the extent of pre-service offerings in driver education and training articulate, there is need to offer training for teachers already in service. This means that short term, Saturday, late afternoon, or summer courses accessible to the full-time teacher should be provided.

2. *Those selected for preparation as teachers of driver education and training should meet the professional requirements of other secondary school teachers.* The present practice in some school systems of placing such individuals as the school bus driver or a local police officer in charge of driver training is both educationally unsound and legally untenable. Only certified teachers should be admitted for training.

3. *The related fields of specialization of individuals selected for training in driver education should equip them to teach adequately the classroom phase of the program.* An analysis of the specializations of teachers already trained reveals wide variation. Although allowance must be made for individual differences, background training should be directly related to the content of driver education. The aptness of preparation in the fields of mechanical and industrial arts has been previously stated. Although this seems the most desirable combination, other possibilities should be considered. Cities requiring the services of a full-time teacher of driver education might well seek an individual whose major field of specialization is safety education. A teacher properly trained in the many aspects of public and school safety would be a valuable asset to both school and community. Thus far the practice of placing specialists in safety education in public school systems has not been widespread, despite the strong case that can be presented for the need. The increased acceptance of driver education and training in secondary schools may serve to provide an opportunity for more school systems to support the services of persons trained in safety education.

The desirability of combining driver education and training with physical education is open to question. The physical educator, with his specialized training in the teaching of motor skills, seems a logical expert to teach the skills of driving. Two limitations, however, are the unrelatedness of his preparation to the subject matter of driver education, and the usual heavy load and divergence of duties of the physical education teacher and coach in the average secondary school. If these limitations can be overcome, the physical education teacher may well be highly acceptable as a teacher of driver education and training.

4. *Those selected for preparation in driver training should possess particular physical and emotional qualifications.* Teachers selected for training should be required to meet the physical and emotional qualifications that they must expect of the pupils they will teach. Those certified or recommended by the course of training should pass the basic skills tests and psychophysical tests which are accepted standards for safe driving. Only the well qualified should be recommended.

5. *Adequate opportunities should be provided for mastery of the actual skills of driver training.* Only experienced drivers should be recommended for teacher training. The difficulty often arises, however, that experienced drivers have poor driving habits which are difficult to change. Sufficient behind-the-wheel instruction should be given so that the student teacher will not only learn the techniques of teaching driving skills, but will replace his own poor driving habits with acceptable practices.

6. *Opportunities should be provided for refresher courses and periodic retesting of driving instructors.* The physical defects which may result in poor driving, including failing vision, slowing reaction time, and other disabilities, may develop at any time. Instructors in driver training should be required to renew their licenses to teach at regular intervals. Such a requirement would necessarily be a state or local responsibility, but the college might well provide opportunities for retesting, and refresher courses for learning new techniques and reviewing old.

7. *The present temporary expedient of certifying teachers on the basis of one course should not be considered adequate preparation for teachers of driver education and training.* A careful study of the many facts of the area of driver education and training brings realization of the breadth of subject matter involved. For example, even a simplified knowledge of automotive mechanics requires much study. Highway engineering, with the many new types of traffic lanes and devices, is a technical subject of considerable scope. Likewise the economic and sociological implications of the automobile, on which one of every seven Americans depends directly for his livelihood, open whole areas of study. A single course in which one superficially grasps the contents of the textbook his secondary school pupils will use can hardly be considered adequate preparation. At least the equivalent of what is now generally considered a minor in a teacher-education program should become the basis for future certification of teachers of driver education.

8. *The need to develop major programs of teacher preparation in driver education and training on both a graduate and an undergraduate level should be explored.* The number of full-time positions for teachers of driver education, especially in large systems, is increasing. Those considerations emphasized in items 3 and 7 and discussed in light of the needs of the college instructor should likewise guide the major programs evolved.

9. *The instructor, materials, and equipment available for teacher preparation should be used for a general service course in driver education and training for college students.* The arguments in favor of driver education and training on the secondary school level extend equally to the undergraduate level in college. Students too young to take driver training in secondary schools or lacking the opportunity to do so are in need of this training as college students. Advance in this area is insignificant to date, but offers possibilities for development.

SUMMARY

The implications for teacher preparation in driver education supported herein may be summarized in the following statements:

1. No amount of technological advancement can materially reduce the traffic accident rate, unless it is accompanied by an effective program of public education.

2. An ever-increasing number of secondary schools, recognizing that they are in a unique position to offer much-needed education in this area, are providing courses in driver education and training.

3. If the secondary schools are to do an effective job in driver education and training, adequately prepared teachers are necessary.

4. While the private agencies have effectively pioneered in teacher preparation in driver education and training, the task logically belongs to the institutions specializing in teacher preparation.

5. The first step for colleges in meeting their responsibility to prepare teachers in driver education and training is to obtain qualified personnel to organize and conduct the programs.

6. The second step is to proceed to develop, in line with the basic considerations discussed above, interim programs for the immediate in-service training of teachers, and teacher preparation programs on the graduate and undergraduate levels with specialization in driver education and training.

Teachers College, Columbia University Register of Doctoral Dissertations

ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Volume 3, First Annual Supplement, 1947

Volume 1 of the *Register of Doctoral Dissertations*, covering the years 1899-1936, volume 2 for the period 1937-1941, and volume 3 for the period 1942-1946 may be obtained from the Bureau of Publications, Teachers College.

Annual supplements appear regularly in the March or April number of *Teachers College Record*, and a subject index is included every other year.

It should be noted that titles of dissertations not yet published are sometimes changed at the time of publication.

The *Register* does not include project reports submitted in partial fulfillment of requirements for the Doctor of Education degree. A separate *Register of Doctor of Education Reports*, Volume 1: 1935–March 1, 1945 and *First Supplement:* March 1945–December 1946 are obtainable from the Bureau of Publications, Teachers College. These are reprints from *Teachers College Record*, November and December 1945 and March 1947, respectively.

1. BAVLY, SARAH
   Family food consumption in Palestine; comparison of consumption by Jewish urban population in 1943 and 1946 and methods conducive to improvement of food selection. New York, Teachers College, 1948.
   In press.

2. DEEGAN, DOROTHY YOST
   The stereotype of the single woman in American novels; a social study with implications for the education of women.
   To be published.

3. DORMAN, HARRY GAYLORD
   Toward understanding Islam; contemporary apologetic of Islam and missionary policy. New York, Teachers College, 1948.
   In press.

4. ELLIS, ALBERT
   A comparison of the use of direct and indirect phrasing in personality questionnaires. Washington, American Psychological Association [1947] 41p. (Psychological monographs, v. 61, no. 3, whole no. 284, 1947)

5. EPSTEIN, BERTRAM
   Immediate and retention effects of interpolated rest periods on learning performance. New York, Teachers College, 1948.
   In press.

6. ESCALONA, SIBYLLE KORSCH
   An application of the level of aspiration experiment to the study of personality. New York, Teachers College, 1948.
   In press.

7. FOWLER, FRANK CHARLES
   Modern American dramatization.
   To be published.

8. GILLASPIE, BEULAH VESTA
   An analysis of unsolicited questions re-

ceived from consumers. New York, Teachers College, 1948.
In press.

9. HUNGERFORD, MARY JANE
Dancing in commercial motion pictures.
To be published.

10. KEET, CHARLES DOUGLAS
An experimental investigation of two verbal techniques in a miniature counseling situation.
To be published.

11. LOW, THEODORE LEWIS
Directions in the educational philosophy and practice of art museums in the United States. A study of the historical development of art museum philosophy; the current philosophy in theory and practice as seen in selected public museums with general historical collections; and recommendations for future fulfillment of educational aims. New York, Teachers College, 1948. 256p. [TCCE 942]*

12. MCMANUS, MRS. RACHEL LOUISE METCALFE
The effect of nursing experience on the complexity of mental processes. New York, Teachers College, 1948.
In press.

13. PREZEDPELSKI, BOLESLAW JOZEF
A study of agricultural extension education in Poland between two world wars 1918-1939.
To be published.

14. RICE, JESSIE PEARL
J. L. M. Curry—advocate of an enlightened citizenry.
To be published.

15. ROMNEY, MILES CONRAD
An appraisal of some of the possible effects of the educational finance bill of 1947 (S 472) upon the financing of education.
To be published.

16. RUDOLF, KATHLEEN BRADY
The effect of reading instruction on achievement in eighth grade social studies classes. New York, Teachers College, 1948.
In press.

17. SHRIMALI, KALULAL
The Gandhian plan of education for rural India.
To be published.

18. SMITH, ALDEN WALLACE
Undergraduate influences on post-graduation participation in organizations. New York, Teachers College, 1948.
In press.

19. STENDLER, MRS. CELIA ABBOTT BURNS
Children's awareness of the symbols of social class.
To be published.

20. TINKELMAN, SHERMAN
Difficulty prediction of test items. New York, Teachers College, 1948. 55p. [TCCE 941]*

21. WATSON, JACK MCLAURIN
The education of school music teachers for community music leadership; the opinions of school music teachers in South Carolina on their undergraduate college preparation. New York, Teachers College, 1948.
In press.

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* TCCE = Teachers College Contributions to Education, published by the Bureau of Publications of Teachers College.

Recent Doctoral Studies

FURTHER EFFECTS OF ADDED THIAMIN ON LEARNING AND OTHER PROCESSES*

During three periods of time between May, 1941 and September, 1944 the effect was observed of supplementation of the dietary in an orphanage with 2 milligrams of thiamin daily per child. Thirty-seven to fifty-five carefully matched pairs of children living in the orphanage were used as subjects, one member of each pair receiving thiamin and the other member receiving an outwardly indistinguishable placebo. No participant in the experimental work, child or adult, had knowledge concerning the group to which any child belonged during the course of the experiments.

Measurements of performance included intelligence tests, educational achievement tests, tests of rote memory, tests of the retention of memorized material over long periods, reading tests, reaction time, visual acuity, and games of skill. Other measures, such as height and weight, were made regularly and the incidence of head colds during the experimental period was recorded.

In the first six weeks' trial of the thiamin supplement, with thirty-seven pairs of children serving as subjects, the thiamin-supplemented group made superior mean gains in performance in every one of the 18 test tasks. The individual variations of gain in each group were within the limits of probable error in the case of 7 of these tasks.

In the second period of observation, a trial period of one year, 15 activities were measured with fifty-five pairs of children acting as subjects. The thiamin-supplemented members of these matched pairs again surpassed the control members in mean gains in performance in every activity on the program of measurement. The superior gain of the thiamin-supplemented group of children was statistically significant for 8 of the 15 activities measured in the year-long trial.

In the third period of observation, the final year-long reversal trial period, twenty-seven pairs of children were continued through the second year with the same regimen of daily dietary supplementation as in the previous year, while twenty other pairs were so reversed in their grouping that those who had formerly received the thiamin supplement now received a daily placebo, and vice versa.

The pairs of children whose order of thiamin supplementation was maintained unchanged throughout the two years continued to demonstrate superior gains in average performance on the part of their thiamin-fed members in all the test tasks on their program of measurement.

The other pairs of children, whose daily thiamin supplements were reversed between them at the end of the first year of observation, demonstrated reversals of superior mean gain in 8 test tasks, such as memorizing rote material, code substitution, vis-

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*By Ruth Flinn Harrell. Bureau of Publications, Teachers College, Columbia University, 1947. This study supplements the research reported by the author in her doctoral dissertation, *Effect of Added Thiamin on Learning*, Contributions to Education, No. 877, published by the Bureau of Publications in 1943.

ual acuity, and remembering learned items. Adverse effects of the withdrawal of the daily thiamin supplement failed to show, however, in the intelligence tests, educational tests, tests of reaction time, and in measures of height and weight.

It is clear from these studies that the results of thiamin supplementation are not sufficient to be observable over short periods of time in all measures of performance. The cumulative effects throughout a lifetime may, nevertheless, spell the difference between alert, successful living and a marginal effectiveness.

CONTROLLABLE COMMUNITY CHARACTERISTICS RELATED TO THE QUALITY OF EDUCATION*

THERE is no school in existence which exemplifies all that is known about how good a school can be. Schools vary widely in the quality of education they provide. Some are no better than those of fifty years ago, while even the best school utilizes only a fraction of the know-how available for making schools better. Research reveals a half-century span between the introduction of a new or an improved educational practice and its diffusion throughout the schools of a large area. The average school may be said to be almost a half century behind the growing edge of education. The discovery of ways to reduce the gap between best practice and common practice is one of the greatest tasks facing education. This is particularly important in view of the fact that our increasingly complex society struggles with maladjustments which threaten its stability and direction unless, according to many, a more effective education is made available to our people.

This study seeks to throw light on why schools lag. One of its two major purposes is to discover the extent to which differences in the quality or adequacy of education in various schools may be related to differences among the communities in which the schools function. The second major purpose is to suggest ways in which knowledge gained regarding this relationship may be used to reduce the fifty-year lag in the spread of educational adaptations.

Three sets of measures were selected for this analysis. They comprise a total of twenty-four separate factors by which communities can be objectively measured to show how they differ. In addition, a measure of the quality of education in the schools of each community was obtained. The first set of factors may be described as indicating good will toward education, and includes measure of the educational level of the community, occupational level, and factors working to broaden the public mind with reference to education. The second group consist of factors described as conditioning the expression of good will and understanding of education. These factors fall into three subgroups: trends in community prosperity, wealth and tax burden, and universality of immediate interest in schools and taxes. The third group is community understanding of what schools can do.

Sixty-odd communities were scored on each of the twenty-four separate measures and these were combined into three group scores and finally a single score combining all measures. All these scores were subjected to a variety of statistical analyses to ascertain their relationships to the goodness of schools.

The results of these analyses indicated a significant correlation between a number of the separate measures and the quality of education. The single score of community factors revealed a correlation of .8 with the measure of the quality of education. In short, it was found possible to predict 64 per cent of the variation among the schools by use of the twenty-four community factors employed in the study. Thus, the community appears to be extremely significant as a conditioner of its schools; or perhaps a better way to express it would be to say: to a great extent the school is an expression of the community.

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*By TRUMAN M. PIERCE, Ph.D. Teachers College, Columbia University, Metropolitan School Study Council, Research Studies, No. 1.

This important relationship suggests that one possibility for improving schools would be through increasing community potential to produce education by guiding community change into directions of community improvement in factors known to be highly related to good schools. This suggests a comprehensive community analysis for the purpose of understanding the present community setting for schools and for ascertaining the direction in community trends. A follow-up step to this study would be charting a course for controlling community change by means of sound community planning. Zoning is stressed as one specific means of channeling community change into desirable directions.

Another means of apparent significance for improving schools is through raising public understanding of what schools can do. This factor appears to be relatively independent of others employed in the study and thus might not be considered an outcome or a cause of other characteristics in community change which may favorably influence schools. Apparently, the factor of good will and understanding may be influenced without reference to community standing in other factors of potential for producing good education. Available evidence indicates that improved understanding comes as a result of closer cooperation between the school and the community. This may involve laymen and professional people working together in studying the school, its problems, its needs, and how to meet its needs.

This study strongly indicates the importance of local autonomy and local initiative as factors to be considered in making schools better. It thus has implications for setting up school districts, relation with central authorities, and for the functions of school administrators. It places great responsibility on the local school administrator for understanding his community and for community leadership. It may even indicate that his most important job is working with his community.

CHILDREN'S CONTRIBUTIONS IN SCIENCE DISCUSSIONS*

A CONSIDERATION OF CHILDREN'S VERBAL RESPONSES IN RELATION TO CERTAIN OBJECTIVES FOR SCIENCE INSTRUCTION

After a period of years, the work of educators interested in science instruction in the elementary schools has resulted in a statement of certain objectives. It was the purpose of this study to investigate some of these objectives with regard to their appropriateness for young children. The verbal responses of children in grades one through six were studied.

An analysis was made of the objectives for science teaching in the elementary schools which were listed in the report, "A Program for Teaching Science" (1932), of the Committee on the Teaching of Science of the National Society for the Study of Education. On the basis of this analysis, twelve categories were devised to represent the accepted objectives. Each was defined in terms of the type of responses which could be classified under that particular category.

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*By Katherine E. Hill, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 931.

The school selected for the study was one in which the teachers accepted the objectives under consideration and had done so for at least eight years. One hundred forty-three children in six grades participated in the study. One class at each of the six grade levels was used. A total of thirty-two records for each of the six grades was obtained.

Two methods were used in collecting the data. The first was to classify each response made by a child in one of the twelve categories representing the accepted objectives, or in a thirteenth category, Miscellaneous. The second method used was the recording of remarks verbatim when time permitted.

An analysis of the classified responses was undertaken in order to determine the appropriateness of the objectives as teaching goals. One measure of appropriateness was whether or not children's natural contributions in a science discussion were related to the objectives. It was found that responses made in each of the six groups could be classified as representing each of the objectives. In addition, it was found that the greatest number of responses were classified as representing four of the objectives related to problem solving. It seems, then, on the basis of this analysis, that the objectives studied are appropriate in that children are able to respond to them.

Another basis for judging the appropriateness of the objectives was that of investigating the relative excellence of the remarks of children at the first and sixth grade levels. Since a large number of responses had been recorded verbatim, responses representing only the five objectives directly related to problem solving were used. Criteria were devised to define "goodness" of responses in relation to these objectives. First grade and sixth grade remarks were then presented to three judges, who ranked each remark in the five sets of responses in order of excellence. An examination of the ranked responses revealed that each of the judges consistently judged the majority of the sixth grade remarks as better than the majority of the first grade remarks. Remarks of older children seemed to be more discriminatory than those of younger children. Those made by older children more often involved more than one idea, with a consequent comparison of these ideas.

IMPLICATIONS FOR THE CURRICULUM

The findings of this study may hold particular interest for two groups—those interested in science instruction in the elementary school and those interested in the general curriculum of the elementary school.

1. The objectives studied seem, on the whole, appropriate as goals in elementary school science instruction. Few responses were classified under Recognition of Achievements of Thinking. Perhaps this indicates that this particular objective may be more appropriately held for junior or senior high school teaching. Since more responses were made pertaining to Responsibility and Cooperation, Initiative, Application of Experience, and Skills when experimental materials were being used, it might be well to urge that children be allowed to engage in activities making use of such materials. It is, however, in no way suggested that children be deprived of carrying on a thought-provoking discussion or a reading-discussion type of activity. It is suggested that all these activities be used.

2. No progress was indicated in regard to the objectives studied so far as increase in number of responses, from one age level to another, was concerned. Recognizable differences were found, however, in the remarks related to problem solving. The investigator has presented certain criteria for the "goodness" of responses which might be related to these problem-solving objectives. It is suggested that all the objectives listed in this study be redefined by sets of criteria which would give some consideration to relative excellence of responses to be expected at various age levels.

3. It was found that even the youngest

children were capable of questioning, of identifying, of speculating, of recognizing causal relationships, and of drawing conclusions. It is, therefore, suggested that children be allowed to make use of these abilities in many classroom experiences. It is the opinion of the investigator that these abilities should be encouraged not only in relation to science experiences but in relation to thinking in any area of endeavor.

ONE-STEP PROBLEM PATTERNS AND THEIR RELATION TO PROBLEM SOLVING IN ELEMENTARY ARITHMETIC*

Teachers and supervisors are generally agreed that to teach pupils to solve verbal problems in arithmetic is a difficult task and that the results of such instruction are usually unsatisfactory. The present study suggests a new attack on the teaching of problem solving by classifying one-step problems in terms of a limited number of one-step thought patterns.

A one-step problem is one to which the answer can be obtained by performing a single operation of addition, subtraction, multiplication, or division. A two- or three-step problem requires the performance of two or three successive operations respectively in order to obtain the answer. To solve a three-step problem one has to solve three one-step problems, hence the one-step problem is of basic importance in the solution of all problems.

A one-step thought pattern represents a large group of one-step problems and is illustrated by the following problem: "Joe has 30¢. Mary has 25¢. How many more cents has Joe than Mary?" In this problem two unequal amounts are given which are to be compared by finding *how much more* one amount is than the other. Many variations of this problem are possible but the thought pattern in each is the same, namely, the comparison by subtraction of two unequal amounts to find *how much more* or *how much less* one amount is than the other.

The main task of this study was to analyze about 15,000 verbal problems in arithmetic with respect to the one-step thought patterns involved. These problems, with minor exceptions, represented all the verbal problems in four series of widely used arithmetics covering grades three to six inclusive. The more important findings were as follows:

1. Critical analysis of these 15,000 problems showed that all of them could be classified under 38 different one-step thought patterns, of which 4 were in addition, 10 in subtraction, 8 in multiplication, and 16 in division.
2. There was a wide variation among the authors of the texts studied in their grade-by-grade treatment of the thought patterns. Certain patterns were neglected while others were emphasized.
3. On the basis of the total number of repetitions of the thought patterns in all four grades combined, there was close agreement among the authors.
4. On the basis of the total repetitions of the thought patterns in all four grades combined, the multiplication patterns ranked first in frequency, the division patterns second, the subtraction patterns third, and the addition patterns fourth. This was true in each of the four series of arithmetics.

The implications of this study for the teaching of problem solving are evident. If pupils are made familiar with each thought pattern by solving a wide variety of problems representing that pattern, it seems reasonable to assume that the ability to solve verbal problems in arithmetic will be much improved. The thought patterns can be of service to teachers and authors as guides in selecting verbal problems for teaching purposes, or in checking problems in textbooks and standardized tests to see that important types of quantitative thinking are not neglected.

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*By Ethel Sutherland, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 925.

EDUCATIONAL PHILOSOPHY AND PRACTICE OF ART MUSEUMS IN THE UNITED STATES*

PART I of this study traces the historical development of the educational philosophy of art museums from 1870, when the first great public museums were founded, to the present day. Source material includes charters, acts of incorporation, and the writings of museum presidents, trustees, directors, curators, educators, and related leaders in the fields of education and art. Although most charters and acts of incorporation stressed the educational character which the new institutions were to have, it is demonstrated that this goal was eclipsed for many years by practical matters involved in fund raising and collecting. Shortly after the beginning of the twentieth century, education, in an active sense, began to find its place in museum programs. Today some leaders in the field are asserting their belief that the primary function of museums is education. Coupled with this belief is the conviction that the content of the education which art museums impart should be expanded to embrace the study of man. Thus "culture history" rather than art history and aesthetics becomes the ideal of these spokesmen.

The second part of the study brings to light current opinion and practice, placing them in juxtaposition with the ideas expressed by the spokesmen in the preceding section. Current opinion was secured through the use of a questionnaire sent to directors of art museums with historical collections in cities of 200,000 or over. Replies to the questionnaire indicate, in general, that the majority of directors do not subscribe to belief in the dominance of education, nor do they share in the demand for an emphasis on culture history. For the most part, present directors believe in an equal, tripartite division of function in museums among "collecting and preserving, the advancement of knowledge, and the diffusion of knowledge."

Educational practice, however, reveals a growing tendency to place more and more weight on the educational function so that the three functions mentioned are often no longer equal in actuality. Great strides have been made in recent years in the development of educational techniques. This is particularly true in terms of work done with school classes as well as in methods of exhibition and in the writing of popular publications. Many examples of these advances are discussed.

Part III embodies recommendations for a revitalized museum philosophy and for immediate steps which can be taken to put that philosophy into practice. Particular stress is laid on the need for a broader training of museum personnel. In terms of programs, emphasis is placed on the work which museums might do as leaders in the field of adult education. Suggestions for future policy and practice are discussed under the following headings: educational staff and its training, the museum's public, instruction, exhibition, publication, extension, related activities, and sociological and psychological research.

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* By THEODORE LOW, PH.D. Teachers College, Columbia University, Contributions to Education, No. 942.

Departmental Notes

Board of Trustees of Teachers College

FOUR new appointments, twelve promotions, twelve leaves of absence, and one resignation were passed upon at the meeting of the Board of Trustees on Wednesday, February 11.

New members of the faculty include two professors of education, Martin P. Chworowsky, Ph.D., from February 1, 1948, and Bayard Dodge, D.D., LL.D., as Visiting Professor for the 1948-49 Spring Session. Howard F. Fehr, Ph.D., was named Professor of Mathematics, effective September 1, and Paul H. Davis was appointed General Secretary of the College, effective February 1, 1948.

Promotions from Associate Professor include Natalie K. Fitch, Ph.D., to Professor of Home Economics; Clara M. Taylor, Ph.D., to Professor of Nutrition, and Robert L. Thorndike, Ph.D., to Professor of Education.

Assistant Professors who were promoted include Ruth Cunningham, Ph.D., to Associate Professor of Education; Hubert M. Evans, Ed.D., to Associate Professor of Natural Sciences; Nicholas Hobbs, Ph.D., to Associate Professor of Education; Aileen T. Kitchin, Ph.D., to Associate Professor of English; Alice M. Miel, Ed.D., to Associate Professor of Education, and Jane D. Zimmerman, Ph.D., to Associate Professor of Speech.

Dorothy Wilson, Ed.D., and Margaret M. Adams, A.M., are both advanced from Instructors to Assistant Professors of Nursing Education, and Chandos Reid, Ph.D., Research Associate in the Horace Mann-Lincoln Institute, becomes in addition Assistant Professor of Education. All promotions are effective July 1, with the exception of Dr. Wilson's, effective February 1, 1948.

Leaves of absence for the academic year 1948-49 were granted to Professors Arthur T. Jersild, Lilla Belle Pitts, Ralph B. Spence, and Alice W. Spieseke. Professors Willard S. Elsbree and Irving Lorge were granted leaves for the Winter Session, 1948-49, while Professors Edmund deS. Brunner, Raymond Burrows, R. Freeman Butts, Harry D. Kitson, Magdalene E. Kramer, and S. Ralph Powers were granted leaves during the Spring Session, 1948-49.

The resignation of Thelma Potter, Ph.D., Assistant Professor of Education, was accepted with regret, effective January 31.

Office of the Dean

TEACHERS College alumni were honored with the presence of Acting President Frank D. Fackenthal of Columbia University at the annual alumni dinner held in Atlantic City on February 24 at the Hotel Traymore. Five hundred and seventy-five graduates and friends of the College heard President Fackenthal greet them in the name of the entire University and stress the important role Teachers College has played and will play in the development of Columbia. Dean William F. Russell addressed the gathering on the traditions of Teachers College, pointing out that the institution was founded on a grass roots ideal of teaching people to live better lives and that the faculty and students must never lose sight of this basic premise underlying all of the work of the College. Dr. Abel Hanson (Ed.D. 1941), superintendent of schools in

Elizabeth, N. J., was toastmaster, and guests of honor included Mr. Paul H. Davis, general secretary of the University, M. René de Messières, cultural counsellor of the French Embassy in New York, and Dr. Herold Hunt (Ed.D. 1940), general superintendent of schools in Chicago.

At the Phi Delta Kappa annual luncheon also held in the Traymore, Dean Russell spoke on "The True Relation of Education to War and Peace." The Dean urged a worldwide organization of teachers, free from political interference, to see that the schools continue to serve the cause of peace.

Institute of Studies of Comparative Government and Education

To commemorate the centenary of the Revolution of 1848, the Société d'Histoire de la Révolution Française of New York, of which Professor Boris Mirkine-Guetzévitch is president, sponsored a meeting in the Horace Mann Auditorium February 27. Dean William F. Russell, vice-president of the Société, presided at the session. Speakers included Professors Jean-Albert Bédé of Columbia, Crane Brinton of Harvard, Gilbert Chinard of Princeton, René de Messières of Wellesley (cultural counselor of the French Embassy), Henri Peyre of Yale, and Professor Mirkine.

Horace Mann-Lincoln Institute of School Experimentation

A series of four articles on the implications of the child development approach to education by Professor Arthur T. Jersild will appear in the *Journal of the National Education Association*. The first, "Child Development and the Curriculum," was a feature of the February issue.

At the request of AMG, Professor Jersild has prepared a paper on the present status of child psychology in the United States for publication in a special American issue of the Japanese *Jido Shucri* (Child Psychology). A translation will also appear in *Die Amerikanische Rundschau* for German readers.

Division I

Foundations of Education

SOCIAL AND PHILOSOPHICAL FOUNDATIONS

THE role of the busy traveller was enacted by Professor George S. Counts in January. "Soviet Education and Its International Significance" was his topic on January 12, when he addressed students at Lehigh University and the Foreign Policy Association of Bethlehem, Pa. On January 19 and 20, he addressed meetings of university students, teachers, and parents in Toronto and London, Ontario, Canada, on "Recent Changes in Soviet Education," "Education for Democratic Living," and "New Educational Horizons." "Are the Colleges Doing Their Job?" was the subject of Professor Counts, President Harry D. Gideonse of Brooklyn College, and Dr. Ordway Tead, chairman of the City Board of Higher Education, in a radio discussion January 22. An all-day meeting in Washington of the American Federation of Teachers' Commission on Educational Reconstruction was his destination January 25. His final stop for the month was Baltimore, where he addressed a special institute for public school teachers on "Educational Implications of the Current Social Scene," and participated in an evening television program on the general topic of education, on January 30.

As a member of the newly-formed Committee on the International Exchange of Persons, set up to implement the Fulbright Act in the sphere of post-doctoral personnel and projects, Professor Counts attended the organizational meeting in Washington February 11.

AMONG divisional members attending and participating in the AASA meetings in Atlantic City the last of February were Professors Counts, Harold O. Rugg, R. Bruce Raup, Lyman Bryson, and R. Freeman Butts.

The first section of the February 23 morning meeting of the National Society of College Teachers of Education, entitled "Social Foundations of Education: History and Philosophy of Education and Educational Sociology," heard a committee of educators including Professors Counts, Raup, and Rugg.

Professor Rugg aided in the presentation of the subject in a discussion group, "Citizenship Education in a Divided World," February 23, and was in another group considering "Research on the Curriculum" February 24 for the American Educational Research Association of the NEA.

The seventh general session on February 25 was highlighted by an address by Professor Bryson, "How Good Are the New Tools for Teaching?" He also spoke on "Secondary Education for Tomorrow's Youth" February 21 at the annual banquet of the NASSP.

On February 24, Professor Butts was chairman of the panel of a special meeting on the history of education.

"CONFLICT in the Far East" was Professor Donald G. Tewksbury's subject February 9 when he spoke before the Mary Clap Wooster Chapter of the D.A.R. in New Haven, Conn.

PSYCHOLOGICAL FOUNDATIONS AND EDUCATIONAL RESEARCH

ON February 3, Professor Arthur L. Gates addressed the dinner session of the annual reading conference at Temple University, Philadelphia.

A paper based on an analysis of the procedures used in 20 type B Doctor of Education projects entitled "Utilizing Research in Making Practical Decisions" was read by Professor Percival M. Symonds at the February 23 meeting of the American Educational Research Association in Atlantic City. Professors George W. Hartmann and Robert L. Thorndike participated in the Association's meetings February 24, and Professor Helen M. Walker spoke on "Statistical Understandings Every Teacher Should Have" the same day at a joint meeting with the National Society of College Teachers of Education.

VICE-president of the American Educational Research Association for 1948-49 is Professor Walker.

Division II

Administration and Guidance

EDUCATIONAL ADMINISTRATION

FEBRUARY 21 to 26 found the members of the department at the national convention of the AASA in Atlantic City. The convention's theme was "The Expanding Role of Education."

The discussion session audience on February 25 heard Professor John K. Norton speak on "Issues in Federal Aid Legislation," while Professor Paul R. Mort addressed another group on "The Superintendent and Effective Public Relations." Professor Edward S. Evenden, chairman of the committee on standards and surveys this year, reported on two special studies made for the AASA, "A Quarter Century of Standards" and "The Control and Support of Teachers Colleges." Professor Willard Elsbree discussed "Education as a Profession" before the section on school organization and administration of the National Society of College Teachers of Education.

Professor Francis L. Bacon's schedule included speaking to the National Society for the Study of Education on February 21; presiding over a discussion program on

"Pupil Personnel" at the National Association of Secondary School Principals' meeting, and over the annual meeting of the state coordinators of NASSP, February 23, and conducting the superintendents' meeting on "Pros and Cons of Universal Military Training" February 25. Professor Paul Essert was a member of two discussion groups—"The Superintendent Shares with Teachers and Others in Planning Programs and Policies," February 23, and "Adult Education and the Community," held on February 25.

At the joint conference on February 21, sponsored by the Council on Cooperation in Teacher Education, Professor Karl W. Bigelow spoke on "International Aspects of Teacher Education." He also participated in a discussion on "Higher Education" February 24. "Defining a Good School District" was Professor Frank Cyr's topic in a discussion group February 24 on Reorganization of School Districts. He also commented on "The Responsibility of the Community for Its Educational Program" February 23, and on "School Transportation" February 25 in connection with the AASA Department of Rural Education meeting.

PROFESSOR Emeritus Thomas H. Briggs spoke on "The Role of General Education" in connection with the National Association of Secondary School Principals meeting in Atlantic City February 23.

As laureate counselor, Professor Evenden attended the convocation of Kappa Delta Pi at Atlantic City February 24 to 26.

ON February 16 and 17, Professor Elsbree was in Wilmington, Del., where he is consultant to the personnel committee of the self-survey of the local public school system.

PROFESSOR Bacon attended a meeting of the Headmaster's Association at the Westchester Club, Rye, N. Y., February 12 and 13.

GUIDANCE

AN overview of the 1948 Yearbook of the National Society for the Study of Education, entitled "Delinquency and the Schools," was given by Professor Ruth Strang at the Atlantic City meetings February 23. At the morning meeting of the American Educational Research Association on the same day, she read a paper on "Principles of Readability for Research Reports."

Division IV

Instruction

CURRICULUM AND TEACHING

ASSOCIATE Dean Hollis L. Caswell was one of the main speakers at the national ASCD convention which began February 15 in Cincinnati.

Two meetings at the Atlantic City convention claimed Professor Gordon N. Mackenzie's attention. He participated in the discussion group February 25 on "Visual Aids to Teaching," and in the February 24 section of the National Society of College Teachers of Education's conference entitled "Curriculum Instruction and Supervisory Activities: What Should the Student Learn About Curriculum Development?"

AT the first convention of the Association of Private Camps in the Hotel New Yorker February 12, Professor Roma Gans denounced awards as sounding the "death knell of camp life" for many children. She participated in a panel discussion, "Make the Program Fit the Camper."

MATHEMATICS

AT the spring conference in the Chapin School April 13, Professor William D. Reeve addressed members of the mathematics group of the Association of Private School Teachers on "Recent Trends in Mathematics Education."

He was also toastmaster at the annual banquet in the Hotel Claypool in Indianapolis April 3, held in connection with the meeting of the National Council of Teachers of Mathematics.

MUSIC EDUCATION

At the sixth general session of the AASA meetings in Atlantic City, Professor Emeritus Peter W. Dykema was guest conductor of the Atlantic County Elementary School Chorus and Atlantic City High School Glee Club and Chorus.

An article devoted to piano teaching procedures developed at Teachers College by Professor Raymond Burrows and other members of the staff appeared in the March issue of *Good Housekeeping* magazine. Written by George Marek, the article is entitled "New Ways of Piano Teaching."

A piano recital in Philadelphia was given by Professor Burrows on February 22 and a two-piano performance with Professor Anthony Loudis of the University of Delaware, in Staten Island on February 29.

HOME ECONOMICS

Professor Helen Judy-Bond attended the meetings of the NEA in Atlantic City February 20 and 21, and the AASA later in the week. She also attended the regional meeting of the American Social Hygiene Association early in February as a member of the education committee.

At the annual conference of the New York Tuberculosis and Health Association in the Hotel Pennsylvania, New York, March 9, Professor Bond discussed "Preparation for Marriage and Family Living" for college students.

Representative of the department at the meeting of the American Vocational Association in Washington the week of February 16 was Professor Laura Drummond.

Professor Orpha Mae Thomas was a speaker at a Food Institute in Philadelphia February 13, sponsored by the Hospital Council of Philadelphia, the Hospital Purchasing Services of Pennsylvania, the Philadelphia Dietetic Association, the Philadelphia Hospital Association, and the Philadelphia Hospital Buyers' group. Her topic was "Controlling Food Costs in Hospitals."

BUSINESS AND VOCATIONAL EDUCATION

A survey of the curriculum of the Trade School in Springfield, Mass., is being directed by Professor Hamden L. Forkner.

Division V

Nursing Education

The grant of $5230 from the National Foundation for Infantile Paralysis is being used chiefly in a course on advanced orthopedic nursing directed by Miss Jean Hill. Of the students in this program, two are on scholarships from the Foundation. Mrs. Doris Miller, on a fellowship, is developing a course in physics for nurses as applied to orthopedics, in connection with the program.

As a representative of the Association of Collegiate Schools of Nursing, Professor Virginia Henderson attended the annual meeting of the American Council on Education in Washington January 23 and 24.

Upon the invitation of the faculty, two representatives from the student body of nursing education have been elected to serve on each of the Division's standing committees: curriculum, orientation, scholarship and loan, library, publicity and public relations, hospitality and social, and alumnae.

SPEAKERS at the January 27 meeting of the Hudson Valley League of Nursing Education in Albany were Professors Helen S. Storen and Frances Reiter.

A two-day conference in Washington January 19 and 20 on the maternal and child care program of the Children's Bureau was attended by Professor Reiter, Mrs. Margaret Adams, and Miss Hattie Hemschemeyer.

"WHERE Is that Nurse?—Here Is the Answer" was the topic of Miss Peggy E. Kakosh at a meeting of the committee on nursing of the New York Academy of Medicine Society February 5.

Office of Field Relations and Placement*

The following list continues the appointments of Teachers College Alumni reported for February in the March *Record:*

Earle, Alice M. (A.M. 1936), teacher of fifth grade, North Roslyn School, Roslyn, N. Y.

Ellison, Alfred, principal and director of music, Workshop School, New York, N. Y.

Farmer, Ray (A.M. 1938), teacher of economics, New Mexico Highlands University, Las Vegas, N. M.

Feyereisen, Kathryn V. (A.M. 1943), assistant professor of education, Wayne University, Detroit, Mich.

Fitz Patrick, Robert (A.M. 1947), instructor in social studies, High School, Farmingdale, N. Y.

Fulton, Harriet (A.M. 1943), assistant professor of voice, Gustavus Adolphus College, St. Peter, Minn.

George, Otto L., instructor in history, St. Lawrence University, Canton, N. Y.

Gleason, Ethel H. (A.M. 1947), kindergarten teacher, Bentley School, New York, N. Y.

Gordon, Henrietta (A.M. 1938), lip reading instructor, Veterans Administration, New York, N. Y.

Groner, Dorothy M. (M.S. 1947), nutritionist-in-training, State Department of Health, Albany, N. Y.

Guy, Jack Gill (A.M. 1947), head basketball coach, Bucknell University, Lewisburg, Pa.

Hamel, Mary Lou (A.M. 1946), teacher of special seventh grade, High School, Monticello, N. Y.

Hassell, Conchita Munoz (A.M. 1947), instructor in Spanish, Adelphi College, Garden City, N. Y.

Hawkins, Helen H. (A.M. 1947), teacher of third grade, W. C. Chance High School, Parmele, N. C.

Healy, Harold Elton (A.M. 1946), teacher of mathematics and science, High School, Middletown, Conn.

Hebbard, Mabel Husted (A.M. 1947), teacher of music, New York Institute for the Blind, Bronx, N. Y.

Helin, Eero Robert (A.M. 1947), teacher of physical education and coach, High School, Marshfield, Mass.

Hopkins, Barbara J. (A.M. 1946), instructor in physical education, University of Illinois, Urbana, Ill.

Horne, Ethel (B.S. 1947), public health staff nurse, New Haven Visiting Nurse Association, New Haven, Conn.

Horning, Ralph V. (A.M. 1940), head of music department, Eastern Oregon College of Education, La Grande, Ore.

Hryz, Mary Anna (M.S. 1943), dietitian, Evans Hall, Carleton College, Northfield, Minn.

Jackson, Armand E. (A.M. 1947), assistant professor of music, Jamestown College, Jamestown, N. D.

Jacobs, A. Gertrude, instructor in physical education, High School, Teaneck, N. J.

Jancu, Florence D. (A.M. 1946), librarian assistant, Health Insurance Plan of Greater New York, New York, N. Y.

Jeffords, Dexter M. (A.M. 1947), unified studies teacher and research librarian, High School, Oak Ridge, Tenn.

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* Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Field Relations and Placement. For initial registrations covering three years, no fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Kessner, Robert Herman, counselor of men, Florida State University, Tallahassee, Fla.

King, Muriel (A.M. 1944), teacher of mathematics, Randolph County Training School, Roanoke, Ala.

Klann, Corinne (A.M. 1947), supervisor of vocal music, Public Schools, Mount Vernon, Wash.

Konopka, Jeannette F. (A.M. 1947), instructor of nursing arts, West Jersey Hospital, Camden, N. J.

Kramer, R. Anne (A.M. 1947), co-director of nursery school, Woodycrest Nursery School, Tulsa, Okla.

Landgraf, John F. (A.M. 1941), teacher of commercial education, Montclair High School, Montclair, N. J.

Langley, Elizabeth Gall (A.M. 1941), first grade critic teacher, State Teachers College, New Paltz, N. Y.

Lapeyre, Gretchen R. (A.M. 1933), teacher of history, High School, Baggs, Wyo.

Lauziere, Maurice H., teacher of French and Spanish, Franklin School, New York, N. Y.

Leiter, Lloyd G. (A.M. 1946), assistant professor of engineering drawing, Bowling Green State University, Bowling Green, Ohio.

Marks, Emma Reddick (A.M. 1944), assistant nursery school teacher, Howard University, Washington, D. C.

Marshall, Harvey T. (A.M. 1947), director of music, Union High School, Mantoca, Calif.

Meno, Lionel W. (A.M. 1947), principal, Frederick Harris School, Springfield, Mass.

Mish, Helen E. (A.M. 1931), assistant professor in English, Hanover (Ind.) College.

Moon, Donald Elwin (A.M. 1947), instructor in industrial art, Homeville Junior High School, Terrace, Pa.

Moore, Ouida (A. M. 1946), assistant professor of home economics, Alabama College, Montevallo, Ala.

Moorman, Robert (A.M. 1947), assistant professor in English, Georgia Teachers College, Collegeboro, Ga.

Morgenweck, Alfred F. (A.M. 1947), assistant director of physical education, YMCA, Bedford Branch, Brooklyn, N. Y.

Mummery, Dorothy V. (A.M. 1930), associate professor of child development, University of Georgia, Athens, Ga.

Mungenast, William J., teacher of history, Grover Cleveland High School, Caldwell, New Jersey.

Myers, Marianna, teacher of music, Southbury Training School, Southbury, Conn.

Nelson, Charles R. (A.M. 1943), elementary coordinator, County Schools, San Diego, Calif.

Owens, Clyde, instructor in music, City Schools, Wilkes Barre, Pa.

Page, Verna Louise (A.M. 1944), teacher of commercial education, High School, Stockton, Calif.

Palma, Emma Frances (A.M. 1947), teacher of art, Long Beach East and West Schools, Long Beach, N. Y.

Parker, J. Cecil (Ed.D. 1942), associate professor of education, University of California, Berkeley, Calif.

Parrish, Irene Marian (A.M. 1947), group teacher of four year olds, Parkway Nursery, Chicago, Ill.

Parsons, Thelma H., teacher of second grade, Hutchinson School, Pelham, N. Y.

Petrullo, Marie G. (A.M. 1946), teacher of music, Bay Ridge High School, Brooklyn, N. Y.

Pollock, Jean F. (A.M. 1947), professor of physical education, Cedarville College, Cedarville, Ohio.

Purcell, Florence, teacher of English, Sewanhaka High School, Floral Park, N. Y.

Rand, Elgah Ruby (A.M. 1947), assistant kindergarten teacher, Greenwich House, New York, N. Y.

Reid, Eileen M. (A.M. 1947), assistant chief dietitian, United States Marine Hospital, Staten Island, N. Y.

Renfro, Richard M., assistant professor of music, University of Wyoming, Laramie, Wyo.

Riblinger, Eunice A., teacher of English and French, High School, Fort Lee, N. J.

Risinger, Opal A. (A.M. 1944), research in special classes, Public Schools, Phoenix, Ariz.

Robbins, Sonya, kindergarten teacher, Nicholai Street School, Hicksville, N. Y.

Rogers, Paul W. (A.M. 1940), instructor in music, State Teachers College, Oswego, N. Y.

Russell, Olive Ruth, associate professor of psychology, Winthrop College, Rock Hill, S. C.

[*Continued in May* Record.]

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Democratic Education: The Hope of the World

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The people of the world today are motivated by fear. They lack courage, optimism, hope for the future. Fear is a disintegrating emotion. It tends to rob individuals and groups of calm, deliberate, reasonable action on which security rests. Hope is an integrating emotion. It tends to pull individuals and groups together toward common purposes which provide an outlet for creative energies.

This fear does not mean that the people of the world have acted in the past without purpose. There is no such thing as purposeless behavior. Rather it means that the purposes of the past have been unsatisfactory. They have not fulfilled the promise of a world in which a better life is open to all. But the people of the world are responsible for the conditions which they face and for their own inner uncertainties about the future. World conditions are made only by the people of the world individually and collectively, and only the people of the world can make them better.

So one may ask why the people do not take hold of the situation rapidly to improve it. The answer has two major parts. First, individuals as individuals are too immature. They have grown up in chronological age only. Their behavior patterns are adolescent or preadolescent. They must mature as behaving individuals before they can contribute positively toward making a better world. Second, most groups now existing in the world have never learned the cooperative, interactive process of group action which is necessary to develop them as individuals and to improve their human relations with others. Thus the hope of the world rests in a new generation of people who have more mature personalities and who use a cooperative, interactive process in solving their problems of living. This sets the focus of democratic education.

THREE CONCEPTS OF HUMAN RELATIONS

There were in the past and there are at the present time three concepts of human relations among peoples, whether applied to family units, to larger states, or to whole nations. The first is authoritarian, in which the many people are controlled by the few. The second is revolt, in which the many struggle to throw off the control of the few. The third is cooperative, in which all work together peaceably and intelligently toward the satisfactory achievement of commonly determined purposes. The dominant human controls that have precipitated the present fear crisis are authoritarian. The revolts of the world past and present are an attempt to shift the authority from one social group to another. They do not represent a new way of dealing with the inciting difficulties. The cooperative solution of human problems has always been a weaker thread in the fabric of civilization. Many people now believe it should become the major way of life, supplanting the authoritarian and revolt techniques.

The authoritarian techniques are control, compulsion, exploitation, restriction, fear, cold war, hot war, compromise, peace treaties which do not keep the peace. The loser, materially and psychologically, works within the compromise to recoup his power so that some day he can again revolt and bring on another war and then have another compromise treaty as a breathing period before the repetition of the same process. This line of action has gone so far now that culturally it is a handicap to further social improvement. It is what makes the people apprehensive.

The cooperative techniques are exploration, search, inquiry, respect for individuals, freeing and upbuilding of human intelligence, development of integrating personalities, purposeful and deliberative social action. Such action involves the experience, the consensus of all who are concerned with or affected by such judgments. Thus there is little need for people to revolt, since hurtful cultural impingements can be readjusted without emotional bias and without damaging personality effects.

Cooperative action as a means of resolving differences has never been a dominant characteristic of cultures, since people upon whom cultural development depends have not as yet reached a level of maturity which would enable them to use cooperative techniques skilfully. The few people who control cultures through authority will not allow such maturity of the masses to develop because it would result in their own downfall and the loss of their favored position. Consequently the world goes on trying to solve more and more complex problems by authority, which is the most primitive of social techniques. We must find a way to raise the level of maturity of more people more rapidly if better living is to be achieved.

MEANING OF DEMOCRATIC WHOLENESS

Most of the millions of words which have been written about democracy relate to political democracy. Very few relatively are about educational democracy. Herodotus, great historian of the fifth century B. C., defined democracy as "that form of government in which the ruling power of a state is legally vested, not in any particular class or classes, but in the members of the community as a whole."[1] He further states that such power must be exercised by all of the people for the good of all of the people. Thus he antedated by many centuries Lincoln's immortal words "government of the people, by the people, for the people." But of course the question arose, How can the whole people operate a government so as to keep control by and for the whole? No satisfactory answer has yet been found, not even in the United States.

The early settlers in America lived under an authoritarian whole rather than a democratic whole. They felt the oppression of the power of the few and they learned the techniques of power control. But they did not learn the meaning of a democratic whole and the related techniques of cooperative group action except in a few instances applied to small local groups. Furthermore they were fearful that their freedom found in the new world would someday be taken away by new autocrats. So they denounced in the Declaration of Independence the tyrannies of autocratic wholeness and set up in the Constitution of the United States a system which would prevent democratic wholeness. That system represents the division of powers, the use of checks and balances, the representative assembly, the two-party political system, the compromise action of majority rule, the right of every individual to protest every governmental action, even when his motive is personal gain or power rather than the welfare of the whole people. Under such a system several things may happen: (1) the whole loses its unity and disintegrates, (2) the parts begin to live as separate control entities, (3) a few determined egotists backed by the power of one of the stronger parts may thwart the needs of the entire people for their own personal advantages, (4) the rights of individuals or small groups may be used to undermine the very cooperative wholeness on which democracy rests. The underlying theory is competition among the working parts in an atmosphere of negative or laissez-faire wholeness. Yet democracy assumes a cooperative relationship among the working parts in an atmosphere of an over-all dynamic of the whole which is superior to the parts. Thus the Founding Fathers designed a system to give maximum freedom to the individual, yet to prevent any individual or group from taking evil action against another. They provided no way for the emergence and development of a common belief or philosophy of the whole which would result in a healthy, positive, dynamic society.[2]

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[1] James Bryce, *Modern Democracies*, Vol. I (New York: The Macmillan Company, 1921), p. 20.

And in many ways the Founding Fathers were right, for there were other conditions which kept the whole healthy. Positive enterprise offset negative government. The common cause of exploring, developing, exploiting a rich continent and a helpless native people kept the whole united. The common needs in connection with these developing enterprises gave unity to the non-political activities of small groups so that parts were related to some dynamic whole. And this continuity of the whole in general life went on in spite of the divisiveness of political institutions.

But such a struggle of the whole against the parts can no longer continue as there is now no integrating dynamic of the whole. The pioneer days are over, the undeveloped land is reduced to a minimum, the growth of new positive enterprise has slowed down to barely noticeable movement. The development of power in the parts of the whole is increasing and the end is not yet in sight.[3] The growing complexity of the problems to be faced has resulted in further subdivision of the parts without the benefit of corresponding integration into the whole. All of these facts are clear and unmistakable evidence of a disintegrating wholeness or a denial of the very dynamic upon which democracy rests.

The schools have been and are now an important divisive factor in preventing the operating unity of the whole group. They have contributed to this by (1) supporting a curriculum which eliminates the many and selects only the academically minded few, (2) placing education on a personal individual gain basis, (3) stressing the academic teaching of democracy which leads to talk but not to action, (4) transmitting to children those aspects of the cultural heritage which glorify the parts, while neglecting those which contribute to the unity of the whole, (5) using an authoritarian control organization, (6) developing in children those individualistic human qualities and relations which go with such authoritarian controls. And this is not to criticize such action. It is merely to state the facts. With an authoritarian background, serving in a magnified parts culture, lacking the disposition toward creative wholeness, and ignorant of the process for developing such wholeness, the schools may have contributed in the past all that the people have a right to expect. The problem now is how to reorient them rapidly and effectively to promote democratic education in the future.

ESSENTIALS OF DEMOCRATIC PROCESS

Democratic education has four major aspects which operate concurrently and simultaneously. These are

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[2] F. S. C. Northrop, *The Meeting of East and West* (New York: The Macmillan Company, 1946), Chap. III.

[3] Stuart Chase, *Democracy Under Pressure.* The Twentieth Century Fund, 1945.

(1) the behavior of individuals, (2) the action of groups, (3) the cooperative-interactive process, and (4) the environment in which these three are developed. Each of these four will now be discussed.

1. All individuals are energy systems. This energy is expended through action within the individual and in relation to the environment outside. The way that an individual organizes, controls, directs, or expends his energy is called his behavior. So every individual is a behaving organism. But not all individuals have equal energy or expend what they have in the same way. The purpose of education is to help each individual control and direct his energy wisely for himself and others. And the measure of his education is in the quality of his behavior. It is not in the number of years of schooling he has received or the subjects he has studied or the degrees he has obtained. And the acid test of his behavior is in his human relations or how he lives with other people.

Our problem now has two parts: (*a*) what controls the behavior of an individual, and (*b*) which of the controls is most important in determining his relationships with other people. There seems to be general agreement among students of behavior that an individual acts on *his* purposes, beliefs, values, attitudes, process of learning, and personality integration both overall and specific to the particular situation. He does not act on the purposes or beliefs or values of someone else. He acts only on his own. Those which *he accepts* are the basis for *his action.* He does not act on facts, bodies of knowledge, objective information of any sort. He acts only upon those attitudes, beliefs, values into which he translates such objective information before it is collected, during the process of acquisition, or after the knowledge is gained. And of all of these dynamics of behavior, that which has the greatest effect upon his relationships with others is the opinion he has of himself, or his own self-attitude. Does he consider himself bright, slow, or very dull intellectually? Does he feel that he is reliable and dependable or unreliable and scatterbrained? Does he accept himself as being creative in thought and action or as lacking in originality of ideas or their interpretation? His opinion of himself affects the way he works with others. If he lacks self-confidence but is without bitterness, he will become the apple polisher to the person in power. If he lacks self-confidence but is bitter, he will become the organizer of a revolt to obtain power for himself in order that he may hurt others as they have hurt him. If he feels accepted by others, he will act cooperatively, showing them the same respect which he has for himself. So the democratic school gives every individual an opportunity to build consciously the dynamics of his own behavior with special attention to his own estimate of himself.

2. The group in which an individual is reared has a profound effect upon his behavior. It sets the quality of human relations which continuously press into his developing experience.

The group can retard or accelerate the growth of a young child in emotional control, in social adjustment, in ability to make thoughtful judgments, in his whole personality development. The more intimate the group—such as family, club, gang—the greater is its effect upon the child for better or worse. There is no such thing as a neutral group. It never has and never will exist. So the quality of the group must be considered in any discussion of democratic action.

Sociologists and social psychologists distinguish between two kinds of groups. One is aggregate, the other is organic. The aggregate group is merely the mathematical sum of the individuals who compose it. The action of the group is the action of the person in control. This is the authoritarian group viewpoint. The teacher who speaks of *my* pupils or the principal who refers to *my* school has this aggregate concept. The organic group has a unified operating quality which is developed in the group by those who compose it. Such unity is found in the common developing experiences. It is not put into the group on the demand of some outside authority. The control, scope, and direction of effort represent the consensus of the group as a whole. Each individual contributes his specialized ability or knowledge under central guidance. Aggregate groups and the authoritarian process of human relations are bedfellows. One is rarely present without the other. Organic groups and the cooperative process of human relations are inseparable. One cannot live successfully without the other. The relationship of parts to the whole is similar to that found in the human body, in which the various organs render specialized services under cooperative, interactive control. The organic group is the normal group; the aggregate group is the abnormal group. And cooperative effort is the human, the democratic action. Thus the predispositions to and actions in human relations of a child are deeply affected by the kind of group in which he is reared.

3. All behavior is an attempt to satisfy needs. Cooperation is a name applied to the process by which need is resolved. Such a process has many aspects. While they arise and operate functionally, some of the most important ones will be here identified as separate parts. Satisfying a need cooperatively consists of (*a*) exploring many incipient needs to discover and select the one which is worth working on, (*b*) searching for the crucial impinging center so that effort will be directed toward the most disturbing conditions, (*c*) locating and agreeing upon some common purposes to give direction and guidance to effort, (*d*) formulating appropriate plans of work to engage the abilities of each member in relation to the purposes to be realized, (*e*) clarifying individual values, meanings, and purposes so that effort will be intelligently placed, (*f*) delegating work responsibility to individuals or subgroups wherever desirable, (*g*) using all available experiences within the group and consulting all pertinent resources outside of

the group, (*h*) assuming responsibility for the entire enterprise by each individual member, (*i*) keeping open the channels of communication so that every person may participate in making the big decisions which shape the entire enterprise, (*j*) knowing when to call for expert advice and learning how to use it when received, (*k*) weighing decisions by the group in process whenever there is a choice of direction or action, (*l*) evaluating results cooperatively as a group with the quality of the process as the continuing yet variable constant and with other outcomes as individual and specialized selections.

This detailed designation of the various aspects of the cooperative process may be summarized under a few major headings as follows: The group must select the needs which it will try to satisfy. They cannot be selected for it by some outside authority. The group must do the planning and make all the decisions. The planning cannot be done for it and decisions cannot be made for it by outsiders. Leadership should emerge from within the group and continue so long as it functions to achieve group purposes through cooperative action. Many leaders for and within various kinds of needs should appear. The work is carried on by individuals and small groups. The whole group is regulative and directive. The responsibility which it delegates to individuals and subgroups should be both genuine and challenging to everyone concerned. But the whole group must hold them to account for the adequate performance of their duties. Individual initiative and enterprise should be encouraged at all times. The group should help each person improve the logic of his own experience through recognized membership character appropriate to his expanding abilities in order that he may develop reasonable and healthy self-attitudes and self-opinions. Evaluation must be cooperative, constant, and continuous. It should go on in process whenever and wherever there is a choice of action or of events leading up to an action. It should take place in retrospect as the need tension subsides. Special attention should be given to appraising the quality of the total process as improved behavior to carry to the resolution of subsequent needs. Such cooperative evaluation is vital to democratic learning.

The quality of the maturity of an individual is a function of the quality of the group in which he has intimate growth relationships. The quality of the group is a function of the quality of the relating process. So the individual learns three things simultaneously as aspects of his efforts to resolve his needs. He integrates his own personality; he learns how to function in an organic group; he learns how to achieve cooperative intelligent action. He builds these into his own organic structure as an attitude and as an action process. He learns to do things cooperatively, to solve problems through social intelligence. He is not a democratic theorist with autocratic behavior. His theory is pragmatic. He grows up by, with, for himself and others mutually, socially, respectfully.

He is a living example of genuine democracy.

4. The characteristics of the environment which best helps people, young and old, to learn this kind of do-democracy can be presented from many reference points. Here they will be viewed from the standpoint of an aggregate of individuals trying to learn how to deal with some of their real needs in a democratic way. To do this successfully the group must have some person or persons within it who understand, accept, and practice the democratic process. Such persons furnish the initial leadership to the others in understanding through use all the various aspects of the process. The other members of the group must be willing to learn how democratic action is achieved. This is no problem with children. It is a very important one with adults—educators and laymen—because of the emotional authoritarianism developed in their early life.

The group must be free to act through the process, as it learns the process through action. This means that outside authoritarian controls or restrictions must be released. There can never be democratic action in any group which must achieve a certain end set in advance by someone in control inside or outside of it. In democratic action the ends emerge as directions within the process. And these are determined within the group.

There must be freedom of interaction among individuals within the group and with others outside of it. Such freedom must allow for expansion of experience to obtain new and appropriate ideas, individual expression of his own thoughts and interpretations of judgments and actions, group and individual encouragement and toleration of freedom of expression, group criticism and evaluation of all proposals to test their worth so as to select the useful and reject the useless.[4] Such freedom of interaction under group criticism and appraisal is basic to organic unity and cooperative action.

In carrying on the process the group must have continuous help by better experts in the process from the outside, who will work with it democratically on the inside. Such persons assist the group over difficult spots by helping its members understand better how the cooperative process works in their own situations on their own problems. And such human resources must be continuously available to all groups who ask for them.

All these factors in an environment can be easily furnished by a school to each of its component groups, if it wants to do so. Such an environment can become the atmosphere in which principals and teachers, supervisors and teachers, superintendent and staff carry on their professional activities if they so desire. Whether or not they solve *their* problems in the democratic way, they *must* give freedom to every teacher in every classroom to develop an educational program with the children through cooperative planning and action. Administrators must protect each innovating group in this opportunity during the school years. Why is this so important? Because the quality of human relations which a child learns emotionally in his intimate groups during his school years becomes the basis for his behavior with people during his adult years. The hope of the world lies with the teachers of the world. They help the children to become little autocrats or little democrats. And they can literally change the world if they will turn their academic classrooms into workshops where everyone matures his personality through cooperative action. This is their great personal and professional opportunity.

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[4] John P. Wynne, *Philosophies of Education* (New York: Prentice-Hall, Inc., 1947), pp. 159-65.

Educational Planning

PERCIVAL M. SYMONDS

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

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UNTIL 1934 Teachers College, through Columbia University, offered programs of courses leading to only one doctor's degree—the Doctor of Philosophy. For several years prior to that date, however, there had been growing tension and restlessness among students over the requirements for this degree, centering on the dissertation, which according to University Statutes was required to embody "the results of original investigation and research on some topic previously approved by the professor in charge of the major subject." The committee in charge of this degree maintained the tradition that an original investigation and research either should follow the canons of scientific research, or should represent an acceptable piece of historical research or philosophical inquiry. On the other hand, there was increasing pressure from both the staff and the students of Teachers College to prosecute studies which would also lead to the improvement of educational practices.

As a result of the effort to combine the scientific with this practical goal some manuscripts of questionable value were produced. When objective evidence with regard to educational policy was not available, students, in an effort to be "scientific," would attempt to determine desirable educational practices by tabulating the returns of large numbers of questionnaires in which the respondent was asked to state his opinion regarding desirable educational practice.

This situation was finally relieved in 1934 by the introduction of the professional degree of Doctor of Education, which permitted those students who wished to focus their energies on the solution of an educational problem to prepare a "project" as part of the requirements for the degree of Doctor of Education and left the degree of Doctor of Philosophy to be a research degree and the dissertation to "embody the results of original investigation and research."

For the Doctor of Education degree three types of projects are permitted. The Type A project "consists of the formulation and the installation or putting into operation of a plan for the professional treatment of an educational problem in an actual situation."[1] The Type B project consists of formulation (without actual installation or application) of a practicable plan for carrying out an undertaking such as that specified for the Type A project. The Type C project was designed to include "the development of instructional materials in any areas or or any educational level; . . . the generalized treatment of any important educational concept, such as the reasoned defense of a reform in instruction or supervision or of a state plan for financing education" and more recently this has been extended to include "undertakings which would meet the traditional expectations of the Ph.D. dissertations."

DISSERTATION AND PROJECT REQUIREMENTS

The dissertation is expected to report a study having some degree of generality—a contribution of general interest to educators. It is *not* to be the description or discussion of education in a single situation or locality. In judging the conclusions of a dissertation, great emphasis is placed on the population to which the conclusions apply and the degree to which the conclusions pertain to this population in the light of the limited sample which constitutes the data used in the investigation. In dissertations of a critical or analytical nature the emphasis is again on validity or truth of the findings or conclusions.

The Doctor of Education degree, on the other hand, is primarily a *professional* degree. Candidates for this degree are professionally oriented and are preparing themselves for *service* in some field of educational endeavor. The project which serves as part of the requirements to be met is expected to deal constructively with some aspect of the educational program in a specified situation or locality. It should pertain to the improvement of education in a clearly delimited situation. There is no intention (except in certain Type C projects) that the Doctor of Education project should be a study having implications of general significance.

ANALYSIS OF EDUCATIONAL PLANNING

Methods of research have been described in considerable detail in numerous articles and texts.[2] But methods of planning in education have had almost no discussion, and students still are left more or less to their own resources in selecting methods of planning the improvement of educational practices. As a first step in formulating planning practices, 20 of the most recent Type B Doctor of Education projects have been analyzed and a chart of the steps necessary in planning an educational program has been drawn up as a result of this job analysis. It may be objected that it is hardly proper to use these admittedly imperfect pieces of educational planning as a guide for what good planning procedure should be, but despite this limitation it is believed that this analysis serves as a springboard for the discussion of procedures in educational planning and the improvement of procedures.

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[1] "The Professional Project." A Manual for Candidates for the Degree of Doctor of Education in Teachers College, Columbia University, 1946.

[2] P. M. Symonds, "A Course in the Technique of Educational Research." *Teachers College Record*, October, 1927, pp. 24-30. Among the better texts are C. V. Good, A. S. Barr, and D. E. Scates, *The Methodology of Educational Research* (New York: D. Appleton-Century Company, 1936); F. K. Whitney, *The Elements of Research*, Revised Edition (New York: Prentice-Hall, 1937, 1942); and H. H. Abelson, *The Art of Educational Research* (Yonkers: World Book Company, 1931).

This guide includes all topics which are found in the analysis. One or more headings in the following outline might have been omitted in any one of the project reports analyzed. It is not intended that a given piece of educational planning should deal with every one of these topics.

ANALYSIS OF PROCEDURES IN EDUCATIONAL PLANNING

I. PURPOSES AND GOALS

II. NEED FOR THE STUDY
- A. From point of view of society
  - 1. From statements of authorities
  - 2. From objective data
    - *a*) Comparison with ideal
    - *b*) Comparison with norm
      - (1) From surveys
      - (2) Questionnaires
      - (3) Interviews
      - (4) Observation
- B. From point of view of individual
  - 1. From statements of authorities
  - 2. From objective data
    - *a*) Comparison with ideal
    - *b*) Comparison with norm
      - (1) From surveys
      - (2) Tests
      - (3) Questionnaires
      - (4) Interviews
      - (5) Observation

III. GUIDING PRINCIPLES
- A. Derived from authority
  - 1. Individual authority
    - *a*) Educators
    - *b*) Philosophers
    - *c*) Historians
    - *d*) Psychologists
    - *e*) Others—sociologists, anthropologists, psychiatrists, etc.
    - *f*) Textbook writers
  - 2. Group authority
    - *a*) Boards, commissions
    - *b*) Yearbooks
    - *c*) Surveys
      - (1) Educational (school) surveys
      - (2) Questionnaire surveys
      - (3) Personal correspondence
      - (4) Personal visitation
        - (*a*) Interviews
        - (*b*) Observation
- B. Derived from controlled experimentation

IV. SITUATION IN WHICH PLAN IS TO FUNCTION
- A. Present setting
  - 1. Factors
    - *a*) Physical
      - (1) Climate
      - (2) Isolation—congestion
    - *b*) Economic
      - (1) Wealth
      - (2) Income
      - (3) Costs of present enterprise
      - (4) Source of funds
    - *c*) Nature of population
      - (1) Social class
      - (2) Age
      - (3) Sex
      - (4) Intelligence
      - (5) Socio-economic level
      - (6) Occupational groups
      - (7) Attitude toward and information about social issues

- *d*) Legal limitations
  - (1) Proposed plan in accord with prevailing laws
  - (2) Proposed plan not in accord with prevailing laws, indicating need for revision
    - (*a*) Laws in conflict with guiding principles
    - (*b*) Laws inferior to better laws elsewhere
- *e*) Organization into which proposed plan must be incorporated
- *f*) Personnel in present setting

2. Determined from
   - *a*) Original survey
     - (1) Tests of knowledge
     - (2) Questionnaire
     - (3) Correspondence
     - (4) Observation
     - (5) Interviews
     - (6) Reference to laws and statutes
   - *b*) Secondary sources
     - (1) Statistics
       - (*a*) National
         - i) Census
       - (*b*) State
       - (*c*) Community
       - (*d*) School
     - (2) Regional surveys
     - (3) Social agencies
     - (4) Travel and observation
     - (5) Textbooks
3. Criteria of evaluation
   - *a*) Taken from authority
   - *b*) Set up by individual making plan

B. Comparison of present setting with other settings
  1. Physical
  2. Economic factors
  3. Population
  4. Laws and statutes
  5. Organization
  6. Personnel

C. History of setting
  1. General history determined from
     - *a*) Historians
     - *b*) Government documents
     - *c*) Census
     - *d*) Back files of newspapers
     - *e*) Other documentary evidence
  2. Trends determined from
     - *a*) Historians
     - *b*) Legislative change
     - *c*) Comparison of curricula
     - *d*) Other documentary evidence

V. PRESENT PROCEDURES DETERMINED BY

A. State statutes
B. Administrative codes
C. Committee reports
D. Association records
E. Student theses
F. Curriculum bulletins
G. Government reports
H. Surveys and special studies
I. Educational directories
J. Statements of individuals in setting
  1. Questionnaire
  2. Interview
K. Personal knowledge
  1. Travel
  2. Observation
     - *a*) Planned observation
     - *b*) Casual observation by virtue of residence or work in situation

VI. INADEQUACIES OF THE PRESENT PROCEDURES

A. As contrasted with ideal—by reference to
  1. Textbook
  2. Individual authorities
  3. Group authorities
B. As contrasted with practice elsewhere
  1. Nature of comparison
     - *a*) Statistical comparison
     - *b*) Comparison with superior situation
       - (1) Grounds for believing other situation superior
  2. Method of making comparison
     - *a*) Tests

  - b) Questionnaire
  - c) Comparison of curricula
  - d) Visits
  - e) Correspondence
  - f) Special investigation
- 3. Method of showing comparison
  - a) Graphing and charting
  - b) Balance sheet—split page

VII. Proposed plan

A. Essential Features

B. Putting plan into action

- 1. Proposals for initiating plan
  - a) Experience in instituting similar plans
    - (1) Published reports
    - (2) Questionnaires
    - (3) Correspondence
    - (4) Personal observation
  - b) Recommendations of authorities
    - (1) Commissions and boards
    - (2) Yearbooks
    - (3) Textbooks
- 2. Special considerations in instituting plan
  - a) Securing participation from those concerned
  - b) Financing plans
  - c) Modification of laws and statutes
  - d) Organizational changes in setting which implementation of plan will require
  - e) Qualifications of personnel required to implement plan
  - f) Securing cooperation of community.

CHOOSING AN EDUCATIONAL SITUATION FOR REPLANNING

Selecting the phase of the educational enterprise that demands rethinking and planning is an individual matter. Naturally a student will turn to a topic with which his past experience has given him some familiarity and also to an area of education that, in his judgment, is of great significance. The purposes and goals of educational planning are closely related to need. Plans for the improvement of some educational undertaking will be stimulated by a realization of the discrepancy between present practice and new proposals taught in courses by forward-looking thinkers, incorporated into commission reports, or recommended in school surveys. Inadequacy in present practice in a particular situation as contrasted with practice in other localities, or with the ideal is a common incentive for undertaking a job of educational planning. Some students buttress their original feeling that an educational enterprise can be improved by making a systematic canvass of need. In some studies this is accomplished by reference to social, national, community, or group needs, for instance, the community need for a program of intercultural education. In other studies the emphasis is placed on the needs of individuals—the need of children for better health service or guidance service, or the needs of adults for an adult education program. It is relatively easy to quote statements of authorities regarding the presence of these needs; a more important contribution is firsthand evidence of the presence of group or individual needs.

THE PLACE OF GUIDING PRINCIPLES

Guiding principles are essential in planning, and the significance of a proposal for the improvement of any educational enterprise depends on the validity, scope, and soundness of the principles which guide the formulation of the plan. These principles are general statements of ways and means that lead most surely to the desired goals. It has been the dream of the educational research movement for the past half century to be able to supply such principles, based on scientific experimentation and inquiry. The finding by Rulon[3] that some subject matters are learned more efficiently by the use of audio-visual methods than by other methods of presentation may serve as an example of research which yields a guiding principle for educational practice.

DETERMINING GUIDING PRINCIPLES

Actually the guiding principles used in these doctoral projects were derived in only one or two minor instances from research findings. In every one of the projects examined, the major guiding principles were derived either from the writings of educational philosophers (and to a lesser extent from those of sociologists and economists; hardly at all from psychologists) or from "educational authorities." Dewey's writings are frequently drawn upon for guiding principles. Most reliance, however, is placed on the reports of commissions, yearbook committees, associations, and school surveys. There is constant reference to the publications of the Educational Policies Commission; the yearbooks of the National Society for the Study of Education, the American Association of School Administrators, the John Dewey Society, the NEA Department of Classroom Teachers, Department of Elementary School Teachers, Department of Rural Education, Department of Science Instruction, and Department of Supervisors and Curriculum Development, the National Society of College Teachers of Education, the National Council for the Social Studies, and the National Council of Teachers of Mathematics; and the publications of the Department of Secondary School Principals. Of similar nature are independent committee reports which influence practice, of which the Harvard University Committee report on *General Education in A Free Society* is an example.[4] Another group of sources for guiding principles in educational planning are experiments in new procedures and practices, on either a small or a large scale, of which the Eight Year Study of the Commission on the Relation of School and College of the Progressive Education Association is a good example.[5]

It would be interesting to study the sources of the recommendations to be found in the reports of these various commissions and yearbook committees. It is believed that in general they are derived not only from the experiences of educational leaders but also from the bold and ingenious experiments of scores of daring innovators of educational practices, all based on certain generally accepted basic goals of democracy, sharing, efficiency, health, and the like. It is the authors' impression that educational research in the form of controlled experiments with careful measurements of results and rigorous comparisons, such as is expected in a Doctor of Philosophy dissertation, has contributed relatively little to the formulation of broad policy and guiding principles.

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[3] P. J. Rulon, *The Sound Motion Picture in Science Teaching*. Cambridge: Harvard University Press, 1933.

[4] Committee on the objectives of general education in a free society, *General Education in a Free Society*. Cambridge: Harvard University Press, 1945.

[5] Reports of this study are published in five volumes under the general title, *Adventures in American Education*. New York: Harper & Brothers.

Because this conclusion seemed so devastating, one of the writers asked 27 members of the American Educational Research Association (those whom he thought were most closely in touch with experimental research) to "furnish me with three or four examples where the results of educational research have influenced in a direct and concrete way educational methods, procedure, or organization. By educational research I mean here controlled experiments with careful measurement of the results and with conclusions which meet statistical tests." (After all, what reason has educational research for its existence, if it does not contribute in at least a remote way toward the improvement of practice?) To date 15 replies have been received. This small percentage perhaps reflects the difficulty of complying with the request. Only four had suggestions, all but one of which related to such details of the teaching process as controlling eye movements, improving the vocabulary, developing number concepts, the superiority of demonstration over laboratory instruction, the social use of arithmetic, the improvement of tests, and methods in teaching handwriting and chemistry. None of these pertain to larger issues of educational policy. One respondent mournfully writes, "I am sorry to report that even after having consulted three of my colleagues I do not find anything that seems just to fit the bill." Another writes, "I guess your worst fears are confirmed by whatever we are able to find for you here." A fatherly letter advises, ". . . don't be too discouraged about educational research. It's young, takes itself somewhat too seriously, and really has a long way to go. . . . I was one of the early members of the AERA (1919, I believe) and I'm hopeful." Finally, one letter hopefully prophesies more promising results from the new statistics, "It seems to me that the more recent development in statistics is going to open the way for more useful experimentation in education. To date our major disappointments in experimentation have grown out of the necessity for holding all variables constant but one and allowing that one variable to operate within such clearly defined limits that when we finished, our conclusions have been so highly specific to the situation as to be relatively impracticable. With the use of analysis of variance and covariance, we can proceed experimentally with numerous factors varying normally and then feel out the relative effects of differing variances." It is the writers' opinion, however, that the trouble arises not so much from the statistical handling of the results of experimental inquiry as from the difficulty in setting up the experiments themselves.

The one response to the inquiry for the findings of experimental research that have been put into practice comes from J. Wayne Wrightstone, Assistant Director of the Division of Tests and Measurements of the Bureau of Reference, Research and Statistics of the New York City schools. Wrightstone presented evidence of investigations concerning (1) the appraisal of the activity program in the New York City elementary schools,[7] (2) the postponement of formal reading and formal arithmetic for primary grade children[8] (3) an experimental evaluation of the all-day neighborhood schools in New York City,[9] and (4) an experiment (in process) in school camps. According to Wrightstone each of these studies "has definitely influenced the policies and practices in actual school situations in New York City." Wrightstone says of his work:

> One major reason that our research projects have been translated into practice in New York City is that the Superintendent of Schools and the Board of Education have been willing to receive and consider objective studies on problems before determining on an inclusive policy. Our Division, therefore, has frequently been called upon to evaluate enterprises which have been begun in an experimental way. These reports have then been considered in the determination of their policies. It is fortunate that our Superintendent of Schools and our Board of Education have taken this attitude in the determination of their policies, otherwise many of our studies would be of academic interest only or we would be disregarded in the process of policy determination.

This Bureau is one of the few in the country whose research is being used in the determination of educational policy. It is indeed unfortunate that so much experimental research in education is of theoretical value only and is completely divorced from application in any actual situation.

The alternative to determining educational policy by research procedures is to use authority, and there is a natural reluctance to depend on authority for important decisions. One must be discriminating about authorities. Naturally one would avoid "authorities" who based their principles on slender evidence, who were stubborn and dogmatic in their teachings, who held nearsighted social points of view, or who lacked balance and vision and the grasp of the many issues involved. On the other hand, those who bring broad intelligence to a problem, who have rich experience of their own, are willing to be governed by experience of others, and are catholic in point of view and humanitarian in outlook are probably our best source for guiding principles in policy formulation.

SURVEY RESEARCH

An important part of planning consists of knowing the situation into which the plan is to be introduced, its resources and limitations, and being familiar with present procedures and practices and their inadequacies. This is the heart of the study as a study and is the point in the undertaking that requires contact with the field and the gathering of data. It is customary to divide research into two categories which may be called *generalization* research and *survey* research. The first is that kind of research which attempts to establish principles or laws of some degree of generality which can serve as a guide to practice. Generalization research may and should yield "guiding principles," which were discussed earlier in this article. Survey research undertakes to describe a particular situation and is an essential ingredient in any kind of planning. One cannot buy himself a pair of shoes or build himself a house without knowing what size shoe he wears, or what kind of house he wants and how much money he has to spend. One cannot formulate a commonsense plan in education without knowing the setting and conditions into which it is to be introduced, whether it is planning a curriculum for a church school, a guidance program for a rural school, or a student-teaching program in a university.

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[7] J. W. Wrightstone, "An Evaluation of Aspects of the Activity Program in the New York City Public Elementary Schools." *Journal of Experimental Education,* December 1939, pp. 166-207.

[8] Special Report P. N. 22-053, Public School 170, Manhattan, distributed by the Division of Tests and Measurements, Bureau of Reference, Research and Statistics, Board of Education of the City of New York.

[9] J. W. Wrightstone, Mimeographed report.

If an individual is to do effective planning, he must be the master of methods of collecting information, whether by direct inquiry, by visitation and observation, by obtaining information from others through interviews, correspondence, or the use of questionnaires and schedules, or by utilizing the published results of such inquiries. City school superintendents establish departments of research whose task it is to collect the facts and information which the superintendent needs in formulating his plans. The student must become aware of such factors as the unreliability of various kinds of evidence, sampling issues, and sources of published statistics. He should know how such survey data can be condensed, what statistical treatment is called for, and how survey data can be most effectively presented. He should know the correct use of derived indices and the proper method of making comparisons.

THE PLAN ITSELF

In every instance in these projects the plan itself was formulated without further outside aid with only the assistance of (1) guiding principles, (2) knowledge of the setting, including the present procedures which are in operation. The act of planning is a pure act of deductive reasoning which consists of drawing a conclusion from given major and minor premises.

IMPLEMENTATION OF THE PLAN

Finally, some projects did not stop with the formulation of a plan but considered its implementation and the steps necessary for putting it into action. It must be admitted that the type of educational planning found in these doctoral projects is to a degree artificial. Much educational planning today is of a cooperative nature, and those who are expected to carry out the plan are called in to assist in its formulation. Any plan which is drawn up in isolation, as are these doctoral projects, should include a consideration of how those who will be responsible for carrying out the plan can be included in it.

Here, then, is a blueprint for instruction in educational planning. Educational research has long been a shibboleth in the preparation of students for advanced training and higher degrees. Too often this emphasis in research has been an end in itself and has to a degree lost contact with the problems of education which it was originally designed to serve. Modern technical developments in experimental method, statistical method, the use of tests, and the like have reached such elaboration that it requires a considerable part of the energies of a student to master them, and there is danger that this concentration of energies will cause the student to lose sight of the service which these methods are designed to render. Students taking the doctorate at Teachers College have steadily shifted to the Doctor of Education degree, until at the Commencement in June 1947, 84 per cent received that degree.

This discussion has stressed the shift in emphasis from research to educational planning in the work of advanced students at Teachers College. Emphasis on working out ways and means of improving education was actively a goal in the early days of the College, but it was somewhat lessened by the requirements for the Doctor of Philosophy degree. With the introduction of the Doctor of Education degree, an increased opportunity was provided for students to devote their energies to professional development while working toward an advanced degree. In the analysis of planning procedures as they are revealed in 20 Doctor of Education projects, the following steps were noted.

1. Planning in any specific situation is based on guiding principles. These guiding principles stem from the teachings of educational philosophers, notably Dewey. These principles receive fuller expression in yearbooks, commission reports, survey reports, and other authoritative statements by planning and policy making bodies. Although research results have undoubtedly contributed to the formulation of these guiding principles research was not used directly as a guiding principle in these student projects.

2. Planning must be based on a full knowledge of the situation for which the plan is proposed, including the need, setting, present procedures and their inadequacies. Students need to be acquainted with methods for securing these facts.

3. The formulation of the plan itself is an act of deductive reasoning, using the guiding principles as major premises and the facts regarding the setting as minor premises.

4. Finally, the plan should include a statement about the steps to be taken in implementing it and putting it into action.

Education and Marriage

EDMUND deS. BRUNNER

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

ARE more college women marrying nowadays? In what educational groups are divorce, separation, and widowhood most evident? This article attempts to answer these questions so far as Census data permit, with major emphasis on native white females 18 to 64 years of age.[1]

The 1940 Census presents a large body of new data relating educational status to a considerable number of social and economic characteristics. Some of these relationships have been discussed by the writer in previous articles in this series on education and social characteristics of the population.[2] The present article is based on the Census publication *Educational Attainment by Economic Characteristics and Marital Status*,[3] but it presents additional data, comparing 1947 with 1940, based on a limited sampling study that was issued early in 1948.[4] While the small sample used in the latter study makes completely accurate comparisons between 1940 and 1947 impossible, it does give an indication of trends. This is important because of the war-induced boom in marriages.

In 1940 the per cent of males 14 years of age and over who had ever been married was 65.2. By 1947 this had risen to 71.8 per cent. Comparably for females the increase was from 72.4 to 78 per cent. The difference between the sexes in the per cents ever married is of course related to the fact that there are slightly more males than females in the population, and to the additional fact that the latter marry earlier. Interestingly enough, the sudden increase in the marriage rate in the 1940's resulted in a gain of 6.6 per cent for males and 5.6 per cent for females. The fact that almost two-thirds of the single persons of both sexes were less than 25 years old in 1947 means that the per cents of those ever married may go still higher by 1950. These proportions are already about one-sixth higher than in 1920.

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[1] The source data published by the Census would also make it possible to analyze separately the native whites of native parentage, of foreign or mixed native and foreign parentage, and the Negroes. Data are also presented by cities of various sizes and for urban, rural non-farm, and farm populations by regions.

[2] "Migration and Education," *Teachers College Record*, November, 1947; "Educational Attainment and Economic Status," *Teachers College Record*, January, 1948; and "Education and Economic Characteristics," *Teachers College Record*, April, 1948.

[3] Government Printing Office, Washington, 1947.

[4] Bureau of Census, *Characteristics of Single, Married, Widowed, and Divorced Persons in 1947*. Series P-20, No. 10. This article is based on the data presented in Tables 37 and 41 of the publication cited in reference 3, and on Table 8 of this reference.

Numerically and also proportionately, since data on marital status became available, there have never been so many Americans who are or have been married. Are increases in marriage rates related to education?

In terms of the female population 25 years of age and over, it is clear that the more education the less likelihood of marriage. Thus in 1947, 93.8 per cent of those with less than seven years of schooling, 88.9 per cent of high school graduates, and only 81 per cent of women who had had one or more years of college were or had been married. The 1947 figure, however, represents an increase of 10 points above 1940. In 1947 the average single woman had completed high school, the average divorced woman had finished ten years of schooling, the average married woman living with husband, 9.6 years.

Using such a category as "less than seven years" conceals some interesting variations apparent in the more detailed 1940 enumeration. Nationally a higher proportion of women with either five or six years of schooling marry than of any other educational group. Such a finding would be more easily explained if confined to the 18- to 21-year-olds, since obviously those girls who went on through high school and college would be less available than those who dropped out of school at the legal school leaving age.[5] The finding is true, however, for every age group. The high proportion of women with only five or six years of schooling is more of an urban phenomenon than rural, and is more marked in the South than in the North and far more than in the West.

Assuming that women with five years or less of schooling are more available for marriage than those in the upper educational categories, it is interesting to note that they are proportionately less attractive to males, with a few exceptions, than are those with somewhat more education. At least smaller proportions in this educational group are married than in other categories up to those who graduated from high school. As will be apparent later, lower educational achievement seems to present other status as well.

It is difficult to determine whether a college education was more or less of an obstacle to marriage in the preceding generation than it was in 1940. In that year 68.7 per cent of women college graduates 55 to 64 years of age were or had been married. For the group 24 years old and younger the figure was 66 per cent and for the 25 to 29-year-olds, 52 per cent. However, some of the youngest members of these groups will join the ranks of the married. When consideration is given to those who had had one to three years of college, the combined per cents are 76.8, 74.7, and 77 for these ages. Thus there seems to have been more of a tendency for women born between 1911 and 1916 to leave college in order to marry than for those who were older. That the recent war stimulated this tendency is shown by the 1947 figure, noted above, of about 81 per cent.

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[5] It must be remembered that this educational status group is relatively small. It comprises about 5 per cent of all women up to 25 years of age and does not exceed 10 per cent until the 45 years and over category.

Despite this increase, even in 1947 the percentage of college women ever married was from 10 to 16 per cent less than for those in the lower educational categories. College women married later than others.

One of the important social effects of this situation is to be seen when the net reproduction rate is calculated by educational status.[6] These data, which apply to urban women only, are presented in Table 1.

TABLE 1
NET REPRODUCTION RATE BY EDUCATIONAL STATUS OF FEMALES, 1935-36*

EDUCATION	RATE
College	.74
High school	.94
7 and 8 years	1.23
Less than 7 years	1.39
Total Population	1.00

*Source: B. D. Karpinos and Clyde V. Kiser, "The Differential Fertility and Potential Rates of Growth of Various Income and Educational Classes of Urban Populations in the United States." The Milbank Memorial Fund *Quarterly*, October, 1939.

An important implication for education can also be drawn from the data presented thus far. As of 1947, 50.5 per cent of the married women in the United States 25 years of age and over (nearly 46 per cent of all women of this age) and 47.5 per cent of the males had never entered high school. In 1940 this was true of nearly one-third of the 22- to 24-year-old married women also. Those with elementary school education only are the most fertile of the educational status groups. If the schools are to be effective in education for marriage or for home and family life, this fact obviously indicates a serious curriculum problem and probably also indicates a responsibility (as yet largely unmet) for the church and other non-formal agencies of education operating on the adult level.

The lower marriage rates among college women have many causes. There is, first of all, the obvious time factor. Years in college, while not preventing marriage, tend to do so. This is true among males also. It was not until the group 30 to 34 years of age that the proportion of married males who had graduated from college by 1940 approximately equaled the proportions of those with less education.

In the next place many women, having invested in a college education and having acquired broader intellectual or professional interests, seek to secure some economic return on that investment before marriage. Though 20 per cent of the married women living with their husbands in 1947 were in the labor force, this was true of 76 per cent of all single women not in school.[7] The trend in our culture still is for marriage to remove women from the labor force, especially those with above average educational experience. Moreover, once a woman is professionally employed, our society offers less opportunity for marriage than is available to those not in the labor force, and also presents a psychological barrier in the perennial argument of career versus marriage.

Again, there is evidence that college women who remain employed, to a disproportionate degree have to assume responsibilities for the care of parents or other dependents, or for the education of younger brothers or sisters, especially if they lack employed brothers. It is such responsibilities rather than the amount of education they possess which cause this group to remain single.

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[6] A reproduction rate of 1.00 is necessary for the maintenance of a stationary population.

[7] *Characteristics of Single, Married, Widowed, and Divorced Persons in 1947*, Table 9.

Among the other factors one more may be mentioned. A previous article in this series[8] has shown that in the rural areas, the better educated, especially from farming communities, migrate to the cities in considerable numbers. In so doing they cut themselves off, largely or wholly, from their social group. It takes time to establish relationships with other social groups in the new environment. Sometimes this never happens. The fact of migration therefore reduces or postpones the chances of marriage.

Some of these barriers do not exist at all for men, and others to a smaller degree for men than for women. Indeed, among men above age 29, those with college experience or graduation showed proportionately more marriages than the lower educational status groups. The educational groups with lower marriage rates were those with less than six, and especially four years or less, of total schooling. But as a whole, in the several educational categories, there was in 1940 and also in 1947 far less variation in the percentage of men who were married than of women. This means, of course, that a considerable number of college men marry women with less educational experience than they have had.

Below are reported some of the significant data with respect to marriage and education which are related to region of residence and to urban–rural differences.

At most educational levels and for almost all age groups, a smaller proportion of urban women marry than of either rural non-farm or farm. This is a result both of the urban sex ratio, females being a small majority of the city population, and of the conditions of urban life. The exceptions to this generalization are in the younger age groups among the upper educational levels. Here, up to age 34 farm college women are proportionately less likely to marry than either urban or rural non-farm women. Some of these unmarried college women may be temporarily enumerated among the farm population because of professional positions in education or health in rural areas.

Up to age 34 the rural non-farm women, regardless of educational category, have a higher marriage rate than either of the other residence groups. From 35 years of age on, the rural farm women have higher ratios, with the rural non-farm next, and the urban, as already stated, last.

In passing it should be noted that in addition to having a lower proportion of women ever married, the cities have a higher proportion of childless women than the two rural population groups. This applies to every age group and to every educational level,

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[8] "Migration and Education," *Teachers College Record*, November, 1947.

TABLE 2

ADJUSTED PERCENTAGES* OF CHILDLESS WOMEN AMONG NATIVE WHITE WOMEN EVER MARRIED, ACCORDING TO AGE, EDUCATIONAL ATTAINMENT, AND RESIDENCE
(UNITED STATES, 1940)

AGE GROUP	MAXIMUM YEARS OF SCHOOL COMPLETED					
	Grade School			High School		College
	Under 5	5–6	7–8	1–3	4	1 or More
Urban						
20 to 24	33.0	32.9	35.8	36.8	45.2	54.1
25 to 29	24.6	23.4	26.0	28.1	32.9	36.8
30 to 34	16.5	18.6	20.2	21.8	24.4	24.8
35 to 39	15.5	16.2	17.2	18.4	20.5	20.8
40 to 44	15.0	13.2	15.6	16.4	18.5	17.2
45 to 49	13.9	14.9	16.9	17.7	18.6	16.9
50 to 54	14.4	15.9	17.7	18.9	19.4	18.6
Rural Non-Farm						
20 to 24	26.3	26.4	29.3	29.1	38.0	49.1
25 to 29	20.3	17.6	21.5	23.6	26.5	31.5
30 to 34	14.1	14.6	16.7	17.3	21.9	21.7
35 to 39	11.8	12.8	14.4	14.9	17.6	16.9
40 to 44	9.5	12.6	13.1	14.4	15.3	16.5
45 to 49	11.8	12.7	13.7	14.1	15.3	17.2
50 to 54	11.3	10.8	14.7	16.2	18.0	17.0
Rural Farm						
20 to 24	23.4	23.5	27.0	27.6	33.4	35.4
25 to 29	17.5	17.1	18.1	18.8	22.0	26.3
30 to 34	10.2	10.4	12.8	14.3	14.8	19.0
35 to 39	9.5	8.6	10.8	12.0	13.1	16.8
40 to 44	9.0	7.6	9.8	10.6	12.7	13.4
45 to 49	8.6	9.0	9.8	11.3	12.8	14.2
50 to 54	8.5	8.3	10.7	9.9	13.0	14.2

*The percentages for each age group were adjusted to eliminate the effect of variations in duration of marriage arising out of differences in area of residence and in educational level. *Source:* U.S. Bureau of the Census, *Population, Differential Fertility, 1940 and 1910—Fertility by Duration of Marriage* (Washington, D. C.: 1947), Tables 9 and 29. An identical table appears in the *Statistical Bulletin* of the Metropolitan Life Insurance Company (New York: January 1948), p. 7.

as Table 2 shows. It will also be noted from this table that for all population categories and almost every age group, the proportion of childless women increases steadily as the years of school completed increase.

One interesting bit of data in the comparison of marriage rates among urban, rural non-farm, and farm populations of women with college experience lies in the narrowing spread between the groups as the age decreases. This is clear from Table 3, which also presents the data for the other comparisons made.[9] This is a

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[9] Table 3, it should be noted, deals with the percentages of women married at the time of the 1940 Census, whether the husband was present or absent. To secure the proportion married and living with their husbands, the percentages under the heading Husband Absent given in Table 4 should be subtracted from the percentages married in Table 3. Comparably, to secure the percentages ever married, the percentages of divorced and widowed in Tables 4 and 5 should be added to those given in Table 3.

TABLE 3

Percentage of Native White Married Women by Years of School Completed and Age, for the United States, Urban and Rural Groups, and Regions

AGE GROUP AND EDUCATIONAL STATUS	UNITED STATES	URBAN	RURAL NON-FARM	RURAL FARM	NORTH	SOUTH	WEST
18 and 19							
Less than 5 years of schooling.......	35.8	27.0	39.9	38.5	17.1	41.1	27.3
5 to 6 years.......................	44.9	36.2	50.5	47.3	30.4	48.9	43.7
7 to 8 years.......................	34.3	28.8	42.8	33.9	21.6	43.9	46.3
High school, 1 to 3 years...........	24.4	20.9	31.7	26.7	18.5	33.1	33.7
High school, 4 years................	11.5	9.3	16.6	14.8	8.1	18.4	18.2
College, 1 to 3 years...............	4.7	4.6	6.2	2.5	2.8	7.3	5.4
College, 4 years....................	5.2	5.4	7.1	3.7	2.0	10.1	7.7
20 and 21							
Less than 5 years of schooling.......	52.5	43.3	58.5	54.6	29.5	58.2	63.8
5 to 6 years.......................	60.9	53.8	66.0	62.6	45.1	66.0	63.3
7 to 8 years.......................	52.1	44.9	63.5	55.2	44.4	64.6	63.5
High school, 1 to 3 years...........	52.6	46.4	66.7	59.3	45.2	63.2	68.9
High school, 4 years................	30.0	26.0	40.3	35.9	24.6	38.8	44.3
College, 1 to 3 years...............	14.3	13.9	18.2	10.5	10.5	19.9	19.1
College, 4 years....................	11.9	12.1	14.8	5.7	8.8	16.0	15.4
22 to 24							
Less than 5 years of schooling.......	64.7	59.3	66.9	67.4	42.2	70.7	66.5
5 to 6 years.......................	73.1	65.7	78.7	76.3	57.3	78.1	75.8
7 to 8 years.......................	66.7	60.5	76.2	70.1	61.7	76.1	77.1
High school, 1 to 3 years...........	68.8	63.6	79.9	76.1	63.5	76.5	80.6
High school, 4 years................	52.4	48.1	64.0	59.4	47.3	60.0	66.5
College, 1 to 3 years...............	40.0	40.0	45.1	32.2	33.3	48.5	48.5
College, 4 years....................	25.4	26.6	23.5	21.0	21.8	30.4	31.3
25 to 29							
Less than 5 years of schooling.......	74.1	68.4	76.1	77.6	57.0	80.5	73.4
5 to 6 years.......................	82.6	77.3	87.1	85.9	76.8	85.6	84.8
7 to 8 years.......................	80.0	75.9	86.0	88.2	77.6	84.8	86.5
High school, 1 to 3 years...........	80.4	76.4	88.2	86.6	77.4	84.7	86.2
High school, 4 years................	70.0	65.5	80.0	77.6	66.7	73.5	77.9
College, 1 to 3 years...............	65.8	63.6	72.9	65.1	62.2	70.2	71.3
College, 4 years....................	51.0	50.5	54.0	46.9	47.5	55.5	57.3
30 to 34							
Less than 5 years of schooling.......	79.1	75.3	79.4	82.4	70.2	83.0	77.5
5 to 6 years.......................	86.1	83.3	87.8	89.0	83.7	87.9	86.7
7 to 8 years.......................	84.4	81.0	89.0	88.6	83.1	87.2	86.8
High school, 1 to 3 years...........	84.1	80.9	90.0	89.4	82.7	86.0	86.3
High school, 4 years................	77.3	73.8	85.8	85.4	76.0	78.3	82.2
College, 1 to 3 years...............	76.1	72.7	81.7	81.4	74.0	78.4	80.0
College, 4 years....................	62.9	61.1	68.7	64.4	60.9	64.5	68.2
35 to 44							
Less than 5 years of schooling.......	80.4	76.6	79.7	85.1	76.9	82.1	81.4
5 to 6 years.......................	85.3	81.7	86.1	90.3	84.4	86.4	84.1
7 to 8 years.......................	84.6	81.2	87.5	90.4	84.1	85.9	85.3
High school, 1 to 3 years...........	83.0	79.5	87.7	90.6	82.1	84.4	84.4
High school, 4 years................	78.5	75.0	85.8	89.0	77.6	79.3	81.0
College, 1 to 3 years...............	76.9	73.1	82.0	85.3	75.4	78.4	79.5
College, 4 years....................	63.0	60.0	70.4	71.3	60.1	65.6	68.4

TABLE 3 (*Continued*)

AGE GROUP AND EDUCATIONAL STATUS	UNITED STATES	URBAN	RURAL NON-FARM	RURAL FARM	NORTH	SOUTH	WEST
45 to 54							
Less than 5 years of schooling	75.8	70.8	73.7	82.9	75.2	76.2	75.7
5 to 6 years	78.9	74.3	78.9	85.9	78.6	79.3	78.3
7 to 8 years	78.7	74.1	80.8	87.5	78.6	79.1	79.1
High school, 1 to 3 years	76.7	72.4	79.8	88.0	76.3	77.5	76.7
High school, 4 years	73.2	69.8	79.1	87.3	73.2	72.7	73.9
College, 1 to 3 years	69.9	65.2	74.1	84.7	68.3	71.1	73.1
College, 4 years	58.2	54.3	66.0	78.7	54.7	62.8	63.4
55 to 64							
Less than 5 years of schooling	63.7	57.2	61.8	72.6	62.9	64.9	60.1
5 to 6 years	65.9	59.0	67.1	75.8	65.6	66.3	65.4
7 to 8 years	66.0	59.7	67.4	79.1	66.0	66.2	65.1
High school, 1 to 3 years	63.1	57.3	67.0	78.6	63.9	61.8	62.2
High school, 4 years	60.7	57.4	64.5	77.0	61.3	59.6	60.1
College, 1 to 3 years	55.9	51.6	59.5	71.5	55.4	56.5	56.4
College, 4 years	47.0	43.9	55.2	62.3	44.4	50.6	49.9

Source: Computed from Table 37, pp. 191 ff. of *Educational Attainment by Economic Characteristics and Marital Status.*

possible indication that a college education has become less of an obstacle to marriage than formerly, especially in the years since 1940. On the other hand, the emotional situation created by the war undoubtedly accounted for many marriages which would have been postponed or would not otherwise have taken place.

Regional variations with respect to the percentage of women of various educational categories married in 1940 are very sharp. The regions used by the Census conform in a general way to the over-all trends already noted, but at different rates. It is evident from Table 3, for instance, that at practically every level of education and every age up to 45 years, a higher percentage of southern and western women are married than of northern. The northern percentages are below those for the United States in every age and educational category, save three or four in the two highest age brackets.[10]

EDUCATION AS A FACTOR IN DIVORCE

Does education make for divorce? This question can receive only a partial answer for the simple reason that in a vast majority of the cases the purpose of divorce is the remarriage of one or both of the parties. Once remarried, such persons are, of course, removed from the category of divorced persons.

Divorce, moreover, is not the sole measurement of marital maladjustment. There are tens of thousands of separations, legal or otherwise. These are enumerated under the category

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[10] The North as defined by the Census comprises the New England, Middle Atlantic, and east and west north central Census divisions. The South includes the three southern Census divisions, and the West, the Mountain and Pacific divisions.

“husband absent.” This category, however, also includes separations because of military service, long civilian absence because of work under certain conditions which prevent family residence at the point of employment, or institutional residence. There are strong reasons for believing that such circumstances account for a minimum of the separations reported by the Census.

Table 4 presents the data on this point for the native white women of the United States as a whole. To economize on space and to sharpen the contrasts when these two measures of marital difficulty are related to education, the rates are presented only for those with less than five years of schooling and for high school and college graduates.

TABLE 4

PERCENTAGE OF NATIVE WHITE MARRIED WOMEN WITH HUSBANDS ABSENT, PERCENTAGE OF NON-WIDOWED WOMEN DIVORCED, AND PERCENTAGE OF NON-DIVORCED WOMEN WIDOWED (UNITED STATES, 1941)

AGE GROUP AND EDUCATIONAL STATUS	HUSBAND ABSENT	DIVORCED	WIDOWED
All ages	4.1	3.0	8.4
20 and 21			
Less than 5 years of schooling	5.5	1.8	1.7
High school, 4 years	4.7	1.5	.4
College, 4 years	7.5	0.5	1.9
22 to 24			
Less than 5 years of schooling	5.0	2.2	2.3
High school, 4 years	3.8	1.8	.6
College, 4 years	5.3	1.2	.8
25 to 29			
Less than 5 years of schooling	5.7	1.9	2.1
High school, 4 years	3.1	2.5	.9
College, 4 years	3.9	1.5	.6
30 to 34			
Less than 5 years of schooling	5.7	2.4	4.3
High school, 4 years	3.1	3.5	1.9
College, 4 years	3.1	3.1	1.7
35 to 44			
Less than 5 years of schooling	5.3	2.3	8.8
High school, 4 years	3.4	4.1	5.0
College, 4 years	3.4	4.3	5.2
45 to 54			
Less than 5 years of schooling	5.9	2.4	17.6
High school, 4 years	3.9	3.9	13.0
College, 4 years	4.5	3.9	13.5
55 to 64			
Less than 5 years of schooling	5.7	2.3	30.6
High school, 4 years	3.9	3.2	27.8
College, 4 years	5.3	4.4	29.4

Source: Computed from *Educational Attainment by Economic Characteristics and Marital Status,* Table 37, pp. 191 ff., and Table 41, pp. 210 ff.

Although the data are limited, they indicate that the better educated women tend to seek the solution of marital difficulties in divorce rather than in separation; the ones with less education, in separation rather than in divorce. The chief exception to this generalization is among the youngest groups of women, whose marriages were relatively recent and who may not have had time for a divorce to be granted. When figures for separations and divorce are added, it appears that between the ages 22 and 35 a smaller proportion of better educated women than of those with less education reported broken marriages. This, to repeat, makes no allowance for remarried divorcees. Remarriage is very likely to be a factor in these years.

The higher incidence of separations among those with less education is doubtless due in part to economic status. These groups probably include couples with lower incomes, who are therefore less able to pay for divorce proceedings.

The 1947 results, based on a small sample, do not show much change in rates of separation and divorce as compared with 1940, for women 25 years of age and over, the basis used in the later study. Though naturally there was a sharp increase in the number married, the percentage of married women with husband absent was about one-tenth of 1 per cent less than in 1940, the percentage of divorced women one-tenth of 1 per cent more. In view of the size of the 1947 sample, these differences may be regarded as without significance. The considerable rate of increase in separations and divorces since 1940 is proportionately about matched by the rate of increase in the number married. Again, the remarriage factor is important. From 1940 through 1946, 5,500,000 persons obtained divorces, yet during these years the number of divorced persons of both sexes increased by only about 500,000.

In the main in 1940, the trends with respect to separation and divorce of men are similar to those for women in the United States as a whole. The most significant difference is in the proportions involved. With respect to divorce, most educational and age categories show a sharply smaller proportion of men than of women. The differences usually run from 25 to 50 per cent smaller. This suggests that divorced men remarry more quickly than their former wives.

When the separation and divorce data are distributed according to urban or rural residence, interesting variations from the results for the nation as a whole are apparent. In the main there are smaller proportions of rural non-farm than of urban women who are living apart from their husbands or divorced. In turn, the rural farm rates of separation and divorce are usually significantly lower than the rural non-farm. The chief exceptions are with respect to separations among wives 20 to 29 years of age. In more than three-fourths of the age and educational categories, the proportion of divorced women in the cities is from three to five times that of the rural farm women. A relatively minor part of this difference lies in the migration of divorced women from farm to urban localities. In interpreting the rural non-farm data, it must be remembered that this category includes a number of suburban communities. One-third or more of the rural non-farm population resides within commuting distance of cities of 50,000 population or larger. Nonetheless, as in so many other demographic characteristics, the rural non-farm group lies between the extremes represented by the urban and the farm group.

TABLE 5

PERCENTAGE OF NATIVE WHITE MARRIED WOMEN WITH HUSBAND ABSENT PLUS PERCENTAGE OF NON-WIDOWED WOMEN DIVORCED, BY RESIDENCE AND REGION: 1940

AGE GROUP AND EDUCATIONAL STATUS	URBAN		RURAL NON-FARM		FARM		NORTH		SOUTH		WEST	
	HA*	D†	HA*	D†	HA*	D†	HA*	D†	HA*	D†	HA*	D†
20 and 21												
Less than 5 years of schooling	10.1	3.8	4.9	1.8	3.4	0.8	12.1	0.7	4.5	2.1	4.9	‡
High school, 4 years	5.0	1.8	4.3	1.1	4.0	0.8	4.5	1.1	4.7	1.7	4.7	2.2
College, 4 years	12.7	1.9	10.9	‡	§	‡§	7.1	‡	6.8	‡	11.1	3.5
22 to 24												
Less than 5 years of schooling	9.1	3.4	5.0	2.1	2.3	1.2	8.6	1.7	4.1	2.2	9.0	2.9
High school, 4 years	4.0	2.3	3.3	1.2	2.8	1.0	3.3	1.3	3.9	2.5	4.7	2.8
College, 4 years	4.3	1.3	7.5	0.7	6.2	1.9	4.7	0.5	6.2	1.5	5.2	2.9
25 to 29												
Less than 5 years of schooling	9.2	3.4	5.7	1.7	2.9	0.1	10.0	2.1	3.6	1.7	7.3	3.3
High school, 4 years	3.5	3.2	2.8	1.5	2.0	1.1	2.9	2.9	3.4	2.9	3.7	4.0
College, 4 years	3.6	1.6	4.7	1.1	4.9	1.3	3.7	1.4	4.5	1.5	3.4	1.9
30 to 34												
Less than 5 years of schooling	9.8	4.3	4.9	2.2	2.2	0.7	7.4	3.5	5.0	2.0	6.3	3.7
High school, 4 years	3.4	4.3	2.8	2.0	1.5	1.3	3.0	2.8	3.1	4.1	3.1	5.3
College, 4 years	2.9	3.6	3.3	2.1	2.8	1.7	2.8	2.5	3.1	3.4	3.6	4.7
35 to 44												
Less than 5 years of schooling	8.5	3.9	5.4	1.9	1.9	0.9	6.8	2.6	4.3	2.0	7.0	3.8
High school, 4 years	3.9	5.1	2.9	2.6	1.4	1.0	3.2	3.4	3.7	4.4	3.8	6.6
College, 4 years	3.4	5.0	3.4	3.0	3.5	1.1	3.2	3.6	3.7	4.0	3.4	6.6
45 to 54												
Less than 5 years of schooling	8.5	4.4	7.7	2.4	2.1	0.7	7.0	2.7	4.8	1.9	7.4	2.9
High school, 4 years	4.4	4.8	3.8	2.7	1.2	1.1	3.7	3.3	3.6	3.7	5.1	6.4
College, 4 years	4.6	4.6	5.1	2.4	2.9	1.2	4.1	3.3	4.4	3.0	5.3	6.9
55 to 64												
Less than 5 years of schooling	6.6	3.8	7.2	2.3	2.4	1.0	6.5	2.4	4.8	1.9	8.8	5.5
High school, 4 years	4.4	3.6	4.0	2.8	1.4	1.2	3.9	2.7	3.5	2.4	4.6	5.8
College, 4 years	5.6	4.9	5.4	3.5	3.4	1.4	5.3	3.5	8.8	1.5	5.8	8.4

*HA = husband absent. †D = divorced. ‡Less than 1/10 of 1 per cent; §Base less than 500 cases.

Source: Computed from *Educational Attainment by Economic Characteristics and Marital Status,* Tables 37, 41.

The South had proportionately more divorcees below age 45 than the North in two-thirds of the categories, and more women living apart from their husbands in half of the categories. Above that age the northern proportions tended to be higher, especially in the group 55 to 64 years of age. The western region exceeded both the others in the proportion of divorcees in almost all categories and also usually had larger proportions of women who were separated from their husbands, that is those with "husband absent." These facts are presented in Table 5.

Finally there is the matter of women whose husbands have died. The data on this point for women in the nation as a whole have already been presented in Table 4. Except for the youngest group, in which the number of widows is very small, there are higher proportions of widows in all age groups in the category with less than five years of schooling than in either the high school or the college graduate category. The proportions are probably influenced less by education than by the better economic status of those with higher educational attainments. It is interesting to note that the college women show slightly higher proportions of widows than do the women who only completed high school. A possible explanation is that the husbands of college women had more arduous, perhaps more responsible, occupations.

Space prevents a full analysis of the data on the widowed by region and residence, but that there are sharp differences is well known. Thus in the cities, 9.6 per cent of all non-divorced women ever married were widows in 1940. For the rural nonfarm group the proportion was 7.8 per cent, and for the rural farm 5.8.

Space limitations also prevent an analysis of the Negro data, but the over-all national figures indicate considerable variations as compared with the data for the native white women. Of married Negro women 18 to 64 years of age 14.6 per cent were living apart from their husbands in 1940 and 3 per cent were divorced. The total of these two percentages was almost two and one-half times the percentage for these categories among native white women. The less fortunate position of the Negro was reflected in the proportion of widows—17 per cent of all non-divorced women who were or had been married—twice the white rate. However, only 18 per cent of the Negro women were single in 1940, as compared with 23.5 per cent of the native white. Considerably lower percentages of Negro women with one or more years of college were married than of white; and 15.3 per cent of those between the ages of 25 and 34 ever married were separated or divorced, as against 19.3 for those with high school education or less.

Punctuation

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THE history of punctuation goes back over two thousand years, but we shall start with the first printed books. The early printers (1475-1500) made types for such punctuation marks as they found frequently in the manuscripts they used and inserted these marks as they appeared in the manuscripts, unless they thought it more useful to readers or more convenient to themselves to do otherwise. The earlier scribes used (1) a round or square point (punctum), (2) two such, one above the other, (3) three such, one above another, and (4) a diagonal line (/), but with little consistency or clarity of purpose, being more interested in abbreviations to save labor and paper than in devices to aid the reader.

Printers up to 1500 did slightly better by readers. Their commonest punctuation mark was the /, which is probably the ancestor of the comma but was not used as we use commas. Their next commonest mark was the punctum (round, square, or in the form of a tiny cross), which is the ancestor of our period, but was not used as we use periods. Two "points" one above the other is rarer. What the /, ., and : signified to the printers of 1475 to 1500, or to the readers of their books, was confused and variable. A printer could even for page after page use no /'s, or no :'s, or no .'s. He could leave an entire page or more with no punctuation marks whatever. A pair of short diagonals was used unambiguously at the end of a line to show that the remainder of a word would be found on the following line. But if there was not room for it, it could be omitted. Capital letters were used, but not in accord with any clear rules or customs. (See footnote 1.)

The meanings of punctuation marks prior to 1500 were confused and variable, but the books were doubtless easier to read than they would have been without any marks or with only one mark of punctuation. Printers were abler men than scribes, and more concerned with pleasing readers.

Some of them were specially able men who tried deliberately to improve punctuation. A famous instance is the Italian, Aldus Manutius (1450-1515), who was an excellent scholar in Greek and Latin, and who became a printer primarily to promote learning. He introduced the round comma (,), question mark, "curves" around a parenthetical phrase or clause, quotation marks, and the semicolon. He and his son and grandson made, as printers of the Aldine books, innovations and systematizations in punctuation that had great influence on printing all over Europe. His grandson included in his book on spelling (*Orthographiae ratio*, 1566) a section of about 1000 words which stated rules for the use of the semicirculum or comma, semicirculo junctum, geminum punctum, and punctum. Orthodox doctrine followed these rules more or less for three hundred years.[2]

The variability, inconsistency, and confusion in punctuation were reduced, but by no means eliminated, by the improvements made by the Aldine and other thoughtful printers. Even by 1600 the best scholars and printers had no surety in their use of punctuation marks. Below are some familiar passages from the first folio edition of Shakespeare (1623) and the original (1611) King James version of the Bible.

To be, or not to be, that is the Question:
Whether 'tis Nobler in the minde to suffer
The Slings and Arrowes of outrageous Fortune,
Or to take Armes against a Sea of troubles,
And by opposing end them: to dye, to sleepe
No more and by a sleepe to say we end
The Heart-ake, and the thousand Naturall shockes
That Flesh is heyre to? 'tis a consummation
Devoutly to be wished. To dye to sleepe,
To sleepe, perchance to Dreame; I, there's the rub,
For in that sleepe of death, what dreames may come,
When we have shuffl'd off this mortall coile
Must give us pause.

The quality of mercy is not strain'd,
It droppeth as the gentle raine from heaven

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[1] In the sample shown below (from the *Doctrinal of Sapience* printed by Caxton about 1489) I have modernized the spelling so that the punctuation and capitalization can be examined more easily.

> We read of a hermit which much marveled of the
> divers and obscure judgments of our lord jesus christ and
> by temptation of the fiend he said in his heart that his judgmen
> ts were not just. For god suffered the good men to have ma
> ny tribulations. and the evil people many good things: and
> god sent to him an angel in form of a man which said
> to him in this manner/ Come and go with me for god hath
> sent me to thee. For to lead thee in diverse places: to the end that
> I should show to thee of his diverse and obscure judgments: he
> led him first in to the house of a good man / the which recei
> ved them benignly. and made to them right good cheer. and
> held them wel at their ease On the morn early the angel robbed
> his good host of a fair cup. which cup he loved mar″
> velously. Then the hermit was much angry and thought he
> was sent from god: the night after they were lodged with an
> evil host which made to them right evil cheer. & supped evil
> and had right evil bedding: & in the morning the angel gave to the
> evil host the cup that he had stolen from the good host the ni″
> ght before. & when the hermit saw that he had evil suspicion
> upon the angel. the III night they were lodged with a good

[2] The names semicolon, colon, and period were not used by Manutius.

Upon the place beneath. It is twice blest,
It blesseth him that gives, and him that takes,
'Tis mightiest in the mightiest, it becomes
The throned Monarch better than his Crowne.
His Scepter shewes the force of temporall power,
The attribute to awe and Majestie,
Wherein doth sit the dread and fear of kings:
But mercy is above this sceptered sway,
It is enthroned in the hearts of kings,
It is an attribute to God himselfe:
And earthly power doth then shew likest Gods
When mercie seasons Justice.

And they lift up their voyce, and wept againe: And Orpah kissed her mother in law, but Ruth clave unto her.

And shee said, Behold, thy sister in law is gone backe unto her people, and unto her gods: returne thou after thy sister in law.

And Ruth said, intreate me not to leave thee or to returne from following after thee: for whither thou goest, I will goe: and where thou lodgest, I will lodge: thy people shall be my people, and thy God my God.

Where thou diest, will I die, and there will I be buried: the Lord doe so to me, and more also, if ought but death part thee and me.

But when yee pray, use not vaine repetitions as the heathen doe. For they thinke that they shalbe heard for their much speaking.

Be not ye therefore like unto them: for your Father knoweth what things yee have need of, before ye aske him.

After this manner therefore pray ye: Our Father which art in heaven, hallowed be thy Name.

Thy kingdome come. Thy will be done in earth as it is in heaven.

Give us this day our daily bread.

And forgive us our debts, as wee forgive our debters.

And lead us not into temptation, but deliver us from evil: For thine is the kingdome, and the power, and the glory, for ever. Amen.

It has been asserted by Percy Simpson (*Shakespearian Punctuation*, 1911) that the punctuation in the first folio was arranged to guide the speeches of the actors. And Harrison (*Introducing Shakespeare*, 1939) has asserted that the "authorized" Globe Edition's changes are not beneficial. But neither of these authors could rightly deny that the first folio's punctuation was variable, inconsistent, and confused.

It was only after printers and grammarians drew up elaborate sets of rules for using punctuation marks so as to give the maximum help to readers that consistency was even approximated. It was hard to frame and apply such rules. It still is. Consistent punctuation is a difficult art. If the reader will give to a dozen friends unpunctuated copies of any of the passages above and have them supply punctuation marks, he will find many disagreements. By the kindness of Dr. Irving Lorge I have records from 57 college graduates who supplied punctuation marks for all four of these passages.[3] No two identical treatments of any of the four passages resulted. These 57 persons punctuated the first line of Hamlet's soliloquy in 23 different ways as is shown on the following page.

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[3] If the reader will punctuate all four passages, and do so again after some weeks, he will not agree with himself.

To be or not to be, that is the question.
″ ″ ;
″ ″ !
″ ; ″ .
″ ! ″ .
″ : ″ .
″ : ″ :
″ : ″ ;
″ — ″ .
To be, or not to be, that is the question.
″ ″ !
″ ″ ;
To be or not to be. That is the question.
″ . ″ ;
″ . ″ !
″ ? ″ .
″ ?— ″ .
'To be, or not to be,' that is the question!
“ ″ ;” ″ .
To be or not to be that is the question.
″ ″ :
″ ″ ;
″ ″ !

They punctuated the first twenty-four words of the Lord's prayer in 32 different ways as shown in the table below, in which A, B, C, D, E, F, and G refer to places in the text as shown here: Our Father (A) which art in heaven (B) hallowed be thy name (C) thy kingdom come (D) thy will be done (E) in earth (F) as it is in heaven (G).

	A	B	C	D	E	F	G
1			,	,	,	,	.
2			,	,	,		,
3		,	,	,			,
4		,	,	,			.
5			,	,			,
6			.	,			.
7			.	.			.
8			.	,	,		.
9		,	.	.		,	.
10			;	;		,	.
11		,	;	;			.
12		,	;	;	,		.
13		,	:	,	,		.
14		,	;	;	;		.
15		,	.	,		,	.
16		,	.			,	.
17		,	.	.			.
18		.	;	;	;		.
19		—	.	,			.
20		:	,	,			.
21	,	,	.	,	,		.
22	,	,	.	,	,	,	.
23	,	,	.	.			.
24	,	,	.	;			.
25	,	,	.	,			.
26	,	,	,	,			;
27	,	,	.	.		,	.
28	,	,	.	.	,		.
29	,	,	;	;			;
30	,	,	;	;			.
31	,	,	!	!			.
32	,	,	,	,			.

From 1600 on, customs of punctuation changed greatly. Probably no book printed in the seventeenth century was correctly punctuated by the standards of 1850. Most novelists of the last fifty years would have been greatly annoyed if their books had been punctuated by the standards of 1850.

These changes are caused partly by changes in the ideas of publishers and printers about punctuation, and partly by changes in the ideas of authors. The influence of authors upon punctuation has increased greatly. It is possible that Shakespeare would have let printers alter his script as they felt inclined. But Ibsen and Shaw certainly did not. The printers of Ibsen's day would have deleted many of his dashes. It is possible that Richardson and Fielding left the punctuation of their books to the tender mercies of printers, but George Meredith certainly did not. No printer of his day would have willingly tolerated his use of . . . as a sign of an omitted thought of the speaker. Authors have become increasingly aware of punctuation as an element in style. Many of them now scorn the printer's love for a page of evenly spaced words, with few short lines, unmarred by dashes short and long, rows of dots, or unnecessary exclamation points, or sentences devoid of periods. Such a page now suggests uneventfulness, not to say dullness, to many authors. They prefer short paragraphs and many dashes, suggesting action and vivacity. Many of them disregard manuals and codes which use a dash to mean a break in thought, which limit single quotation marks to a quotation within a quotation, exclamation points to exclamations, and in general attempt to reduce ambiguities. If they use colons except as formal introductions to speeches, arguments, lists, and so on, it is not by rule but for some special purpose, such as to give a flavor of the upper classes to the characters in their books. For reasons of their own they use two lengths of dashes. Rows of dots (. . .) are so used that readers cannot tell what is meant. They may be used with the intention of giving a sense of mystery, or to suggest a very long pause or a less abrupt break in thought than a dash would.[4]

The influence of authors has made punctuation less pedantic and less subservient to grammar and more potent in expressing the movement of a conversation or action and the emotions of persons. Their influence has, however, caused new inconsistencies and confusions. In 1850 a writer, editor, printer, or teacher could find in the second edition of John Wilson's *Principles of Punctuation* a set of rules representing reputable and reasonable customs. But in 1950 there cannot be so simple and authoritative a guide. Summey[5] describes some of the new uses of the ordinary dash, long dash, and . . ., and the new freedoms in the use of the older marks. But writers of poetry, fiction, and probably of essays and histories also, have already gone beyond those he describes.

TEACHING STUDENTS HOW TO PUNCTUATE

The teaching of punctuation has been misled by a number of myths. One is that for any piece of writing there is one right or, at least, one best punctuation. Another is that the differences in merit between the one best punctuation and the inferior ones are great and important. Another is that the reasons for its superiority are logical consequences of principles of grammar or rhetoric. Another is that the unit of writing is a declarative, interrogative, or exclamatory sentence beginning with a capitalized word and ending in . or ? or!. Still another is that the reasons for punctuation marks within such a sentence are to be found by examining it alone. These and other fictions may be useful to teaching on certain occasions just as legal fictions are useful to the law. But they are none the less dangerous fictions.

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[4] The extreme case of authors' control of punctuation is furnished by the comics or picture stories. The adventures of Superman are related with exclamation points, dashes, or rows of dots (. . .) in place of periods. Half the marks in the samples I examined were exclamation points; a quarter were either — or . . . ; the last was used three times as frequently by the authors of Superman as by any other author for whom I have counts.

[5] George F. Summey, Jr., *Modern Punctuation, Its Utilities and Conventions*. New York: Oxford University Press, 1919.

In advanced courses in writing, in schools of journalism, and in publishers' code such "punctuational fictions" should be exposed: (1) by quoting instances where . and : are equally good, where : and ; are equally good, where ; and , are equally good, where . and — are equally good, and so on; (2) by quoting instances where the only reasons for the superiority of a usage are that it helps the reader more or that more and/or better writers use it; (3) by showing the impossibility of getting the units of a writer's flow of words by cutting up passages into pieces beginning with a capitalized word and ending with a . or ? or !;[6] and (4) by showing sentences whose internal punctuation is dictated by the context.[7]

The older methods of teaching punctuation begin with the marks and try to show the proper uses of each. It is more reasonable to begin with the thought or feeling or act to be aroused in the reader, and try to show how punctuation marks help the words to cause it. But this is harder to do. A dozen marks are a convenient basis for the organization of textbooks, explanations, exercises, examinations, and so forth. If we use the more reasonable way we must devise many instructive problems and emergencies. This can be done; and I venture to prophesy that someone with enough ability and ingenuity will do for punctuation marks what has already been done with the parts of speech, and make the facts about them secondary to effective writing.

We learn to punctuate partly by rules and examples, as in learning the salutations for friendly letters and formal letters, partly by imitation of the punctuations we see in our reading.

An almost perfect rule is, "If you ask a question in writing, put a ? at the end of it." Few rules can be framed that will rank with the rule for questions. A corresponding rule for ! after expressions of surprise, fear, approval, and other exclamatory sentences is not so clear, neat, or dependable. Corresponding rules for the terminal punctuation of a statement or command are: "If you make only one statement, put a period after it. If you make two statements, one right after the other, put a period after each, or put a colon or semicolon after the first and a period after the second. If you make two statements joined by such a word as *and*, *but*, *also*, or *however*, put a semicolon or a comma after the first and a period after the second. Punctuate commands as you punctuate statements." These rules are great improvements over, "A period is put at the end of each declarative sentence," which is not true. But they are somewhat ambiguous, and the extension to sequences of more than two statements or commands is clumsy.

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[6] Any long passage from any edition of Shakespeare will do. If even the modernized punctuations of Shakespeare are considered "wrong," almost any long passage from any modern author will serve. Thus we have from Shaw's *Caesar and Cleopatra:*

Unit 1. In the little world yonder, Sphinx, my place is as high as yours in this great desert; only I wander, and you sit still; I conquer, and you endure; I work and wonder, you watch and wait; I look up and am dazzled, look down and am darkened, look round and am puzzled, whilst your eyes never turn from looking out—out of the world—to the lost region—the home from which we have strayed.

Unit 2. Sphinx, you and I, strangers to the race of men, are no strangers to one another: have I not been conscious of you and of this place since I was born?

Unit 3. Rome is a madman's dream: this is my Reality.

[7] For example, the last two lines of the following:

The girl. Old gentleman.
Caesar. Immortal gods!
The girl. Old gentleman: don't run away.
Caesar. "Old gentleman: don't run away!!!"
This! to Julius Caesar!

Helpful rules can be stated for the use of commas in series of words or phrases, for example, "cats, dogs, horses, and cows," "they came early, stayed late, and went home happy," "red, white, yellow, and pink roses," and "she went to the station on the bus, from there to New York by train, from New York to Miami by airplane." The proper habits for clear cases of the principle can be established in children in grade 6 or earlier. Most of the rules in textbooks, however, are inadequate, ambiguous, or dependent on correct interpretation of such terms as sentence, clause, phrase, conjunction, coordinate, and subordinate.

Learning to punctuate by imitation is beset with serious difficulties. The book most revered by children, the Bible, is punctuated badly. Their most popular reading, the comics, are deplorable as models. Many authors from the worst to the best have forsaken the customs developed by three hundred years of experimentation with punctuation.[8] In spite of these difficulties, imitation is a great help in acquiring the preferred customs of punctuating. Fortunately most newspapers are reasonable and conservative in punctuating their items of news.

The facts reported in this article agree in opposing bigotry and pedantry as cardinal sins in the teaching of punctuation. From the elementary school to the graduate school the main aims should be (1) to induce the learner to try to punctuate what he writes so as to help the reader understand and enjoy it, and (2) to give practice in certain tried and true means of doing this.

[8] Suppose that a schoolboy wrote the following: "The trouble was, I didn't know what to do; he was all alone, he seemed to be sick, he was crying, and I wanted to help him: it isn't nice to see a boy break down before your eyes, and act like a loony... and ....I can't get over it. . . ." His teacher might penalize him for ten or more errors. Yet his punctuation follows exactly that of a comparable passage in Graves' *It's a Queer Time.*

Modern Dance in Education*

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MODERN dance, an art based on the creative use of movement, is now a part of the curriculum in a large number of the schools and colleges of the United States. Its further advance is limited only by the number of teachers well prepared both in modern dance experience and in training for teaching. The recognition of this form of dance in education is the result of its development over some twenty-five years, paralleling the development of modern dance as a whole. It evolved through the persistence of dance teachers in experimenting with translation of the complicated, mature, and advanced concepts and techniques of the pioneer dancers into forms adapted to the age levels and dance experiences of students in high schools and colleges. The underlying principles of modern dance were not changed but were molded into forms comprehensible to less mature minds and bodies. That this teaching process has been successful is indicated by the acceptance of modern dance into the curriculum, demonstrating that it offers a contribution to education and fulfills its promise.

In assessing this contribution and the hard-earned place of dance in the curriculum, the fact must be stressed that modern dance is an art, not merely a form of physical education. Dancing taught solely for the purpose of increasing bodily control and muscular prowess has no educational value beyond that of any comprehensive physical activity; physical skill is but one part of the development of the body as an instrument of expression. Confusion on this point occurs even to this day in the minds of those who see the work of untrained dancing teachers using wrong nomenclature and methods, or who, when in school themselves, had a set of gymnastic exercises taught to music, or who misinterpret the inclusion of dance in the physical education program. Modern dance, being one of the arts, offers simultaneous development of physical

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*Reprinted from Jones and DeHaan, *Modern Dance in Education; Techniques and Dances.* Bureau of Publications, Teachers College, Columbia University, 1948.

and creative faculties through the medium of the body. With the first class in dance, students move in a form very different from that of their everyday life. This new way of moving makes possible a creative experience which becomes more meaningful with practice. As students grow more experienced and more articulate, they may not only increase their range of movement and ideas but also expand their interest in related arts and in the world about them, finding new meaning to life, new areas for exploration, fuller understanding of environment, and enrichment of personality. The value of the dance for lay students without experience lies not in learning to endure great physical strain by copying advanced techniques of the more experienced professional dancers but in developing the relationship between their imaginative, mental, and emotional life and its externalization in bodily movements.

EDUCATIONAL AND PROFESSIONAL DANCE

One other widespread misunderstanding about modern dance needs clarification. Many teachers have assumed that there are two kinds of dance, "studio" for professional performers and "educational" for students. The bases of studio and educational dance are the same in concept and approach. The objectives of the studio dance teacher, since she is usually a composer-performer, are dancing as a life career for herself and the teaching of technique for its own sake to students. The objective of the dance teacher in education is primarily the fullest possible development of the whole personality, as well as the physical ability, of each student. Technique is taught as a necessary tool for the student's creative use of movement to achieve the values inherent in the creative process. In all other respects the materials with which the artist and the teacher work are the same in principle and substance. As a result of the misconception about these two "kinds" of dance, however, educational programs have sometimes suffered. Students in high schools and colleges have lost opportunities of experiencing the invigorating, challenging dance development of which they were capable. To refrain from demanding high standards in technical movement and critical analysis in dance composition is to expose the student to a soft and spineless imitation of the genuine art form. A teacher, it is true, must use judgment about the level of a student's capabilities. To take a progression of technical movement from the repertoire of a concert dancer and attempt to reproduce it with young student groups is dangerous; it is a form of stunt training without meaningful content and is of highly questionable benefit even to the student's physical development. The well-balanced dance program in education is based on principles underlying all modern dance but adapted to the level of the students' capacities.

DEVELOPMENT OF DANCE IN EDUCATION

The inclusion of modern dance in programs of physical educaiton has been a natural and normal outgrowth of the changing concepts of physical education in America which were evolving in the same years when the proponents of modern dance were experimenting in their new field. Replacement of the German and Swedish programs of physical education by an American program was a revolutionary step. The primary purpose of the former systems was the development of the physique through automatic responses of students to the commands of the teacher. The American program fostered individual purposeful activity sponsored by the teacher and developed by the initiative of the individual student.

Freed from the restraints of these more rigid systems by the concepts of the new program of physical education, teachers and teachers-in-training with potential interest in rhythmic activity began exploring the possibilities of a new dance form of the period, known as natural dancing. Growing out of the personalized expression of Isadora Duncan, this dance developed free, natural coordinations of the body through a creative response of the individual to a musical stimulus. The advance guard of teachers of natural dancing, such as Gertrude Colby, Margaret H'Doubler, and Bird Larson, did pioneer educational work in the same period when the illustrious concert dancers Martha Graham, Doris Humphrey, and Charles Weidman were working toward similar goals but with different content. It was a period of dynamic change and development during which these great teachers because of their complete understanding of dance and of education laid the sound basis on which the educational dance of today has grown. Their new concepts provided the inspiration for their students' further experimentation. These student-teachers went back to their own classes to attempt a re-interpretation of this material in terms suited to their teaching situations. Not all of them could do this. Some had better physical coordination than creative understanding and presented only predigested dance material, thereby missing completely the meaning of the new dance form. Others felt deeply the rich creative possibilities but did not understand that the body, being the instrument for expression, must be highly trained in order to be responsive to inner compulsions if the idea of the dance is to be clearly stated. But from this experimentation in many forms came a new generation of students who, earlier in their careers, had better backgrounds in some kind of creative dance experience. They in turn filled the ranks of more experienced dancers and teachers, became a part of the modern dance movement, and grew with it to maturity.

The debt which the modern dance movement, its great artists, and its teachers owe to departments of physical education should not be underestimated or forgotten. It was the departments' recognition of the educational values of the new dance movement, their encouragement and support, which helped make it possible for these teachers to experiment, broaden the scope of their work, and keep their students abreast of modern dance developments. Thereby not only have the numbers of those who have had dance experience been increased but an appreciative and sympathetic audience has been built which now can respond with understanding to the dances of the concert artists.

CONTRIBUTIONS TO EDUCATION

For these historical reasons modern dance is usually affiliated with the department of physical education in the school curriculum, but since it is one of the arts, its contributions to the educational process are broad. They may be summarized as follows:

I. Contributions to the Growth of the Individual Student

  A. Physical.

  Development of proper coordination, strength, elasticity, poise, rhythm, control; use of the whole body; physiological benefits derived from comprehensive physical activity; increased aliveness in the body producing a sense of physical well-being.

  B. Mental.

  Understanding and appreciation, through participation, of the dance as an art, of music, both as related to dance and as a separate art, and of costuming in relation to dance and to art principles in general; creative experience affording an emotional outlet and resulting in increased awareness of the world; increased knowledge of all the arts through study and use of principles common to all art forms.

  C. Social.

  Appreciation of varied contributions to the group by many individuals; experience in democratic living; experience of relationships as leader and follower; responsibility for a group project and for one's own contribution to it; cooperation and helpfulness; increased self-confidence; acceptance of criticism and ability to criticize constructively and objectively both oneself and the group; feeling of security in belonging to a group.

II. Relationships with the Whole Curriculum

  A. Integration with the other arts.

    1. Coordination of objectives of the physical education program with those of the arts program through the use of the body as a medium for creative expression.
    2. Direct integration, through the use of other art forms: sketching, with pencil, brush, or crayon, of individuals or groups in dance movement; designing of costumes, involving study of line and color; composing of music; study of musical form as basis for dance form; use of essentials of dance in drama; study of pictures and sculpture of various historical periods for dance materials.
    3. Indirect integration, through use of basic principles com-

mon to all arts: application to dance composition of form, rhythm, accent, repetition and contrast, line of movement, variety, and sincere expression of convictions arising from experience.

- B. Integration with social sciences and history.
  - 1. Study of the dance as a part of a study of any race, or country, or period, since dance has been an expression of the life, customs, and religion of all peoples from primitive times to the present.
  - 2. Use of history and social sciences for thematic material in re-creating an expression of dance in the past.
  - 3. Use of dance as the culminating project of an integrated study, movement rather than words or pictures being used to express what a group has learned or believes.
- C. Coordination with home economics.
  - 1. Making of costumes, involving use of patterns and selection of suitable materials as well as actual execution of the costumes.

III. Relationships with the Aims of General Education

- A. Training of the "whole person": integration of intellectual, emotional, and physical aspects of the individual; use of imagination.
- B. Development of a personality more aware of itself and more sensitive to life.
- C. Development of awareness of the outside world; an increased sense of the continuity and flow of civilization, an understanding of modern times as a product of the past.
- D. Increased tolerance of varying points of view, both of individuals and of groups.

In summation, the value of modern dance in an educational program is that it presents an unparalleled opportunity for achieving a simultaneous development of the student's physical and creative faculties through the medium of the body.

THE GROUP AND THE INDIVIDUAL

Each individual makes a contribution in his own way to a group dance. For instance, through lack of dance experience a student who may have ideas for movement may not have the physical skill commensurate with his concepts. Another student may be developing dance techniques and possess a strong feeling for dance form but be too shy to evolve a solo dance. As members of a group both can give freely of their talents and by the interaction of group discussion and practice may help develop an honest group expression. There are always those in a group, also, who have special interests and knowledge: one may be studying music and may make his contribution through his ability to compose a musical dance accompaniment or through a well-developed rhythmic sense. Another may be interested in costume design and may not only add much to the group, if costumes are to be used, but also increase his own skills through the added experience of designing costumes adapted to the lines of movement of the dancers.

Each person not only gives but gains as part of a creative dance group. The interchange of ideas in making a group pattern is stimulating, the repetition of rhythmic design necessary in any group dance pattern is satisfying, and the demands on each one's creative powers are challenging. The exacting demands of rhythm and of the expression of a concept aid in the development of self-control and self-discipline, and the sustained purposefulness of bringing to completion a creative project give a strong feeling of accomplishment.

SOURCES OF INTEGRATION

In the same way that students bring special aptitudes to be used by and for the entire group, so dance reaches out into other parts of the curriculum, integrating activities of other departments with those of the dance. For example, younger groups just starting dance may see older students in dance costumes and want similar ones, perhaps a short skirt to be worn over the leotards which form the most practical basic dance costume. In their home economics class arrangements can be made for them to make their own skirts under the guidance of the sewing teacher. In presenting a dance production the opportunities for the correlation of many school departments are limitless, as the following short list of the activities supplementing the dances in a presentation clearly shows:

Designing costumes, usually in sketch form first for selection of colors and patterns.
Estimating amounts and costs of materials and purchasing them.
Cutting and fitting costumes, experimenting with them in dances, and completing them.
Arranging lighting.
Building scenery, designing stage properties, or arranging draperies, and so forth.
Making programs, usually with a stencil design for the cover.
Arranging for musical accompaniment.
Rehearsing, if voice or voices are to accompany in song or verse, with teachers in the departments concerned: music, English, drama, languages.

Often during the school year as students are working on their group compositions they transfer that interest to the art classes, where they may sketch some of the groups in movement or use a member of the dance class as a model for the body in action. They may draw in pencil or charcoal, or paint, or model in clay. What students learn about the body by using it in movement may be applied to any sketching from a model, whether or not the subject is specifically dance movement. In music classes students see that music and dance have the same rhythmic basis and that musical structure and form and dance structure and form have similar rules of composition. Thus the elements common to all the arts are demonstrated in movement as the work in dance progresses.

Particularly in present times, educators feel the dance is a worthy part of the school program. All too frequently it can be observed that increased material invention and the resultant complexities of modern life have done much to hamper and even destroy spontaneous creative expression. Educators are turning to the arts for antidotes to this repression, for the arts may be defined as those activities interpretively portraying life not by undisciplined self-expression but by formal communication of ideas through the creative process, integrating intellect, imagination, and emotion. Modern dance is particularly suited to counteracting restrictions on creative impulses, since it employs the human body, a medium available to all and capable, through training and practice, of expressing a great range of human emotions and ideas. Dance may be defined as that art which expresses meanings through movement; to dance an experience is not to reproduce or imitate it but to extract its essence and express one's reaction to it. Young persons are eager to find expression for their confused feelings and thoughts about the world they are moving into, their relationships with others, themselves as individuals, their abilities and interests. In the combined discipline of composition and freedom of expression, modern dance is a fine medium for clarification of their problems.

THE TEACHER'S ROLE

Of all these relationships and opportunities for integration the teacher of modern dance must be aware. She must take full advantage of them in her teaching, so that her students, from the start, will grow in their awareness of their potential powers, their abilities to contribute to a creative dance, and their interest in the interrelationships of the world they live in. At the same time, the teacher must realize that although dance offers great potentialities for development, the mere fact that the potentialities exist does not ensure that they will be realized. Even though the teacher makes the fullest possible provision for such development, she must remember that the learning lies with the student, who must in the last analysis make his own integration. The teacher's part is to explore every means of fostering this integrative power.

Within the scope of modern dance there is a rich field for exploration. As a young art, it should be approached with an appreciation of its potentialities. It is constantly changing under the impact of new ideas drawn from individuals and the contemporary scene. At the present time far more work needs to be done on the analysis of basic material and techniques in order to adapt this material for high schools and colleges. Primarily, a basic approach to technical training should be developed, thoroughly analyzed and solidly founded on an anatomical and physiological basis. This exploration of a wide range of movements should be inclusive enough to give the young dancer complete control of his instrument and freedom from imitations of the personal idiosyncrasies of the various concert artists and teachers. It is of utmost importance that this technical training be supplemented by development of the student's active response to the particular movement through practice in the construction of simple original compositions. Technically, dancing is limited only by the range and capacity of the body for movement, which requires intensive muscular training for wide variation in movement, control, strength, elasticity, and breath control. After the first study of movement with the consequent freeing of the body, each dancer begins exploring and cultivating the movements peculiarly expressive of his meaning. In fostering this growing awareness of the interweaving of physical movements with creative development, the teacher is assisting in the individual's development of his unique personality and of a perceptiveness that will enable him to face and constructively solve personal problems.

A TEACHING APPROACH

The teacher faces a challenge of the first magnitude in the earlier stages of this dance progression. How can she proceed to achieve the aims of modern dance? How shall she teach so that from the first lesson a group will increase the range of its physical coordination and at the same time develop progressively the ability to use these coordinations in simple compositional problems and eventually in the expression of an idea?

When students are in the earlier stages of modern dance the teacher is wise to have most of the dance forms developed by creative group activity. This procedure gives each person a chance to contribute in a way not possible, at this stage, in solo work. Psychologically, too, this is a sound approach, for belonging to a group gives a feeling of security and confidence needed by adolescents and adults alike. The teacher must also have a creative approach, the ability to stimulate her students, excite their interest, and give them a glimpse beyond their own vision, leading them farther than they could go unaided. She must have a thorough knowledge of the needs characteristic of the physical and mental maturity of the particular age level of the class she is teaching, and as much knowledge of the personal background of each individual as she can obtain. She must use all the resources available to her in preparing for each group.

In the following paragraphs are several examples of the procedures by which a teacher may put into practice, at the initial stage, the underlying principles of modern dance on the secondary and college levels.

Beginners must start from where they are; therefore a teacher must use what is known to them, leading them on to the unknown. She can assume that all, having in the past performed each movement in one or several forms, are able to walk and run, slide and jump, bend and stretch, swing and sway. She can further assume that all have heard some kind of music and have recognized it as rhythmic pattern, have seen some kinds of painting or sculpture, and probably have had some experience in folk dancing. Using all known resources to gain responses from each individual, she might choose the following kind of development: A locomotor development of a walk might be first, moving forward, backward, in a circle, or sideward, in different tempos and with different intensities. This might be followed by swings involving axial trunk movement, forward, back, and sideward, in varying tempos and qualities, such as relaxed or tense. In these few simple dance techniques what the students have done for other purposes, such as walking to get somewhere, bending to pick up something, and so on, has been taken out of its familiar context. By concentration on it as movement—framed in a rhythmic pattern with a repetitive sequence, self-controlled in execution—this familiar action becomes a movement in dance form.

Some individuals may find themselves moving only mechanically in these first explorations of movement, that is, performing the actions as exercise only. To help them, as well as those who are more perceptive, in capturing that elusive, all-important "quality" of movement, the class may be divided into smaller units and given the problem of preparing simple, short dance patterns combining the axial and locomotor movements previously presented. The results achieved by each group will be greatly varied, depending on the ability, interest, and experience of the members of the group. One such group may develop a pattern similar to a folk dance, if this has been their previous experience. Another pattern may take a processional form. Still another may have a basically jazz quality. As each group presents its problem, the others will gain new ideas and stimulus in seeing the same material used in various interesting ways.

From such simple forms involving the creative impulse as well as body control, a teacher progresses with her classes to more advanced movement of the body and through discussion, direction, and experiment, to more advanced compositions. Development of the simplest patterns in dance form will provide opportunity for the students to increase their knowledge of the following elements:

Experience in movement: learning the capabilities of the body in various kinds of movement.
Understanding of, and accuracy with, rhythm, tempo, phrasing, and other musical elements.
Ability to use movement creatively.
Understanding of space factors in relation to movement: direction, level, etc.
Understanding of force or intensity in relation to movement.
Use of form: the organization of motor elements into meaningful visual patterns.
Ability to move with "authority," no matter how simple the movement.

At the same time that they are acquiring these specific skills the students will be taking part in the whole integrated learning process that we have seen makes up the modern dance experience.

The foregoing discussion of modern dance classes provides an indication of the experiences of the groups which developed the technique progressions and dances presented in the next section. The usefulness of these dances to those who did not participate in their development lies in their concrete illustration of the results of the teaching process in creative dance. They should be suggestive of ways of developing from similar material different dance forms which, within the framework of a class, will inevitably and properly evolve into new forms unique to the combination of personalities and ideas.

Departmental Notes

Institute of Studies of Comparative Government and Education

In recognition of his scientific work in the fields of political science, history, and public law, the Cross of Officer of the Legion of Honor was conferred upon Professor Boris Mirkine-Guetzévitch late in March by the French Embassy in New York.

Division I

Foundations of Education

SOCIAL AND PHILOSOPHICAL FOUNDATIONS

The first Professorship of American Studies at the University of Manchester, England, is being filled by Professor Emeritus I. L. Kandel, who has been Simon Research Fellow during the past year at the University.

From March 12 to 16, Professor Edmund deS. Brunner kept a series of appointments in Indiana. He conferred with the state staff of the production and marketing administration of the U. S. Department of Agriculture on March 12, spoke to the Indiana state extension staff at Purdue University and gave two addresses at the national workshop of the state leaders of extension, March 15 and 16.

Speakers at the March 1 afternoon session of the annual conference of the Child Study Association of America, held in New York City, included Professor Harold Rugg. With Dr. Sarah Gibson Blanding, president of Vassar College, and Cord E. Meyer, Jr., president of the United World Federalists, Professor Rugg discussed "Conflicts in Our Present-Day Culture—Can Education Meet the Challenge?"

At the University of Louisville sesquicentennial February 9, Professor Thomas Alexander, chief of the education and religious affairs branch of OMG for Germany, U. S., Berlin, was one of 32 men receiving honorary degrees.

"Thunder Over China" was Professor Donald G. Tewksbury's subject in a speech at Western Maryland College on March 22.

Professor Robert King Hall addressed one of four simultaneous afternoon conferences February 27 in Hartford, Conn., on the subject of the occupied areas of Asia. The conferences were part of an all-day institute on "Asia in Turmoil" sponsored by the Service Bureau for Women's Organizations.

PSYCHOLOGICAL FOUNDATIONS AND EDUCATIONAL RESEARCH

The banquet meeting of the national reading conference, held February 4 at Temple University, featured an address by Professor Arthur I. Gates. His topic was "The Reading Specialist's Seven Secrets."

The psychology section of the New York Academy of Sciences heard Professor Helen M. Walker March 15 on "The Sampling Problem in Psychological Research."

Division II

Administration and Guidance

EDUCATIONAL ADMINISTRATION

AT a debate March 15 in the Bronxville, N. Y., Village Hall, Professor Daniel R. Davies supported the affirmative on "Should We Have Federal Aid for Education?" His opponent was Congressman Ralph Gwinn.

PROFESSOR Frank W. Cyr attended the New Brunswick Teachers Association's annual Easter convention at Moncton, N. B., Canada, March 30 to April 2, where he spoke on "Educational Trends in 1948" and "Looking Ahead in Rural Education." Professor Cyr also attended the reorganization workshop of the North Dakota Farmers Union school in Jamestown, N. D., April 5 and 6, where he discussed "What Is a Good School District?"

MONTGOMERY County, Md., educational needs were discussed by Professor Paul R. Mort March 19 at a meeting of the County Board of Education in the Bethesda Elementary School.

The Woodmere-Hewlett Parent Teacher Association heard Professor Mort discuss "What Kind of Education Do You Want to Buy" March 8 in Woodmere, N. Y.

THE National Conference of Christians and Jews' commission on educational organizations has elected Professor Karl W. Bigelow chairman.

On March 2, Professor Bigelow addressed the annual meeting of the College of the City of New York chapter of Phi Beta Kappa on "Educational Activities of the United Nations."

PROFESSOR Emeritus Thomas H. Briggs, director of the consumer education study of the National Association of Secondary School Principals, discussed the field of consumer education before a meeting of the Advertising Club of Boston held on March 2.

As speaker and leader of a round table discussion, Professor Paul Essert heard about the activities of the Adult Education Council of Cincinnati March 22.

GUIDANCE

EN route to California, where he will spend most of his leave during the spring and summer, Professor Harry D. Kitson indulged in a busman's holiday in April. From March 29 to April 1, he attended the NVGA convention in Chicago. In Oklahoma City, where former Professor Herbert Bruner is superintendent of schools, he visited Dr. and Mrs. Bruner, and he addressed the counselors of the Oklahoma City schools on April 26. Students at the University of Oklahoma in Norman heard Professor Kitson speak during his visit there April 27 to 29. He assisted in the eighth annual Carrer Conference sponsored by the University student association.

PROFESSOR Ruth Strang also attended the spring meetings in Chicago. She spoke on March 29 at the general session of the American College Personnel Association on "Analysis and Recommendations for Professional Standards and Training," and on the program of the Alliance for Guidance of Rural Youth, March 31. As a member of the editorial committee preparing a manual for counselors, Professor Strang attended a meeting concerning the publication March 30.

ATTENDING the Chicago convention for the Teachers College branch of the NVGA were Stephen Perry, Frederick E. Maples, Charles N. Morris, David Lane, Vernon Wallace, Stewart Murray, Joseph Stubbins, Marie Miller, Miriam Barinbaum, Mary Mullery, Virginia Vogel, Emily Philpott, and Fay Corey.

Division IV

Instruction

CURRICULUM AND TEACHING

At a conference of California County superintendents and their staffs held in Asilomar, Pacific Grove, Calif., from March 31 to April 3, Associate Dean Hollis L. Caswell gave an address on "What Curriculum and Supervisory Services Are Necessary to Meet the Needs of California," and served as consultant on the curriculum problems of the superintendents. The conference was sponsored jointly by the County Superintendents' Association, San Francisco State College, and the State Department of Education.

Professor Jean Betzner attended the meetings of the International Association for Childhood Education April 19 to 23 in St. Louis, where she led a study group.

Following the St. Louis meetings on childhood education, Professor L. Thomas Hopkins stopped in Decatur, Ill., April 23 to address the local Association for Childhood Education. On May 1, he attended a conference in Richmond, Va., on teacher-pupil planning, and on May 10, he attended a meeting of the National Conference of Christians and Jews in Washington, where he spoke on "Cooperative Planning as a Method of Promoting Better Human Relations in Schools and Communities."

The effective use of educational motion pictures was the subject of a discussion led by Professor Max R. Brunstetter at a workshop on audio-visual materials held in the Westport, Conn., schools March 18.

Professor Emma D. Sheehy attended two workshop periods in Baltimore, February 12 and March 11, when she led discussions for kindergarten and primary teachers. On February 26, in Newark she addressed the New Jersey State Safety Council on "Rhythmic Play and Home Safety." She conducted two music workshops—one on February 24 at Wilmington, Del., and the other from April 19 to 23 at the International Association for Childhood Education convention in St. Louis. On April 23, Professor Sheehy spoke to a student and parent group at Stephens College, Columbia, Mo., on "Music for Young Children."

During January and February, Professor Paul Witt addressed Parent-Teacher groups in New Rochelle and Hempstead, N. Y. On March 3, he participated in a teachers' workshop in Yonkers, N. Y.

At the ASCD meeting in Cincinnati in February, Professor Witt served as a recorder for the discussion group that studied the topic, "Tools for Learning." He is also a member of the New York State Audio-Visual Council.

Miss Marcella Lawler and Professor Witt participated in a series of regional institutes for high school principals and teachers of New Hampshire, from March 30 to April 8. These meetings, sponsored by the State Department of Instruction, focussed on the need for, and nature of, a modern secondary school curriculum.

Professor Florence Stratemeyer was elected vice-president of the Eastern States Association of Professional Schools for Teachers during the three-day convention of that group in New York City, beginning March 18. Professor Stratemeyer also addressed the luncheon meeting March 19.

Professor Ernest G. Osborne is writing a daily column on solutions to simple family problems entitled *The Family Scrapbook,* which is distributed throughout the country by the United Feature Syndicate.

At the symposium on "Health and Family Life" March 18 in New York City, Professor Osborne discussed "Achieving Family Health Through Modern Education." On March 19 and 20, he was a featured speaker at the Georgia Conference on Family Life in Atlanta.

NATURAL SCIENCES

At the National Council on Elementary Science meeting in Cincinnati February 14, Professor Gerald S. Craig participated in a discussion on the improvement of instruction in elementary science. On March 11, he was a consultant for District 5 of the Philadelphia Public Schools, and on March 20, he led a workshop in elementary science for the Association of Childhood Education at Fort Wayne, Ind.

MATHEMATICS

Both Professors W. D. Reeve and John R. Clark spoke at the 26th annual convention of the National Council of Teachers of Mathematics in Indianapolis April 1 to 3. Professor Reeve was toastmaster at the banquet, and a discussion leader at the luncheon on April 3, while Professor Clark spoke that morning on "Teaching Is Fun." He was also a member of the program committee of the teacher training section.

Professor Clark was the principal speaker at the March meeting of the Clinical Association, sponsored by the State Teachers College of Glassboro, N. J. His subject was "The Impact of the Newer Psychology Upon the Teaching of Mathematics."

ENGLISH AND FOREIGN LANGUAGES

A recent report on the status of Slavic languages in American educational institutions by Arthur P. Coleman of Columbia mentions that Teachers College inaugurated the first credit course in methods of teaching Slavic languages in the country in February, 1947. At present, there are six students majoring in the teaching of Slavic languages. A program for the M. A. degree in this field has been approved.

SPEECH

As president in 1947 of the Speech Association of America, Professor Magdalene Kramer reported on developments in the national association at the Eastern Public Speaking Conference, held in New York City April 16 and 17. She also participated in the program on graduate work in speech and drama, discussing "Doctor of Education Degree Versus Doctor of Philosophy Degree."

On April 27, Professor Kramer spoke on "Speech Improvement for Every Child" before the teachers of the Norristown, Pa., School District. "Dramatics in the Educational Program" was her topic at the opening meeting of the Drama Festival for High Schools in Western New York, held April 30 at the State Teachers College, Fredonia.

FINE ARTS

Professor Edwin Ziegfeld is president of the new National Art Education Association, which held its first meetings in Atlantic City February 21 to 23 to adopt a constitution. The Association is the reorganized art department of the NEA, and was formed by a merger of the regional art associations.

On February 12, Professor Ziegfeld was guest speaker at the alumni dinner of the Newark State Teachers College, where he discussed "The Place of Art in Education." He addressed the Montclair, N. J., Museum Art Teachers Association on "Community Resources and Art Teaching" at their March 9 meeting.

At the Merriman School in Waterbury, Conn., March 17, Professor Elise Ruffini was a speaker during an in-service seminar for public school teachers.

"SIGNIFICANT Trends in Contemporary Painting" was Professor Arthur Young's subject in a speech before the Dutchess County Art Association meeting in Poughkeepsie April 12. Professor Young was chairman of a meeting on April 23 at the Museum of Modern Art, New York City, at which Architect Oscar Stonorov spoke.

MUSIC EDUCATION

FOUR thousand school children of elementary and junior high school age heard the Teachers College Choir in a concert March 2 in the Bushnell Memorial Hall of Hartford, Conn. The choir of 80 voices was directed by Professor Harry R. Wilson. On May 11, the group gave a Town Hall concert assisted by the Teachers College Chamber Orchestra and Mr. Richard Carpenter, instructor at the College, who served as pianist. The theme of the concert was "Music of the Faiths."

At various festivals and teachers' meetings throughout the country during March and April, Professor Wilson served as adjudicator, adviser, and guest conductor. On March 20, he was guest conductor for the regional Negro choral festival at Hampton Institute, Hampton, Va. On March 25 and 26, he conducted the all-state chorus at the state teachers meeting in Birmingham, Ala. March 31 found him visiting the newly-organized secondary schools of Atlanta, Ga., a follow-up survey of his work as educational adviser in organizing the curriculum last year. He served as adjudicator and guest conductor for the Georgia all-state chorus at the state music festival in Milledgeville April 1 and 2, and for the South Carolina state chorus at the annual music festival in Rock Hill April 14 to 16. On April 22 and 23, Professor Wilson was guest conductor at the all-county choral festival of St. Louis County, Mo., and on April 28, he was guest conductor in a county festival in St. Joseph, Mich. Sixteen hundred high school and college students were directed by Professor Wilson May 1 at the State College of Kalamazoo, Mich. He also conducted a festival of male voices from the Phi Mu Alpha Sinfonia fraternity in Concord, Ohio, May 15.

MODERATOR for the panel discussion of the creative projects committee and a member of the panel of the contemporary music forum at the Music Educators National Conference in Detroit April 17 to 22 was Professor Howard A. Murphy.

ON March 16, Professor Ernest E. Harris conducted a workshop on instrumental music for the music education department of the Wilmington, Del., public school system.

The Institute of Arts and Sciences of Columbia presented the Teachers College Chamber Symphony, directed by Professor Harris, in a concert in McMillin Theater April 6.

AT the April meeting of the Music Educators National Conference in Detroit, the piano committee, under the chairmanship of Professor Raymond Burrows, conducted eight sessions for piano teachers. A workshop for piano teachers at the University of Texas summer session the week of June 7 in Austin will also be conducted by Professor Burrows.

MR. Carpenter gave a piano recital March 14 at the Brooklyn Museum which was broadcast over New York Station WNYC.

HOME ECONOMICS

SUPERVISORS of school lunches of states in the northeastern area met at Teachers College April 1 and 2.

PROFESSOR Helen Judy Bond participated in the program of the annual conference of the American Social Hygiene Association executives in New York City March 30 and 31.

At a recent meeting in Dallas, Tex., of the School Food Service Association, Professor Mary DeGarmo Bryan was elected president. En route to Dallas, Professor Bryan spoke to school lunch managers in Oklahoma City.

Professor Bryan was a speaker at meetings of the Westchester County Home Economics Association and the Association of Cafeteria Managers, March 9; the New Jersey Dietetic Association and hospital superintendents, March 23, and the Hartford, Conn., Home Economics Club, April 7.

On February 26 and 27, Professor Bryan attended meetings of the New York State School Lunch Systems in Albany.

During March, about 200 public school children visited the nutrition laboratory to see animal experiments being conducted by Professor Clara M. Taylor.

The planning board of the Food and Nutrition Committee of the City of New York held its monthly meeting in the nutrition education laboratory March 23.

Beginning with the March issue, Professor Taylor will serve as nutrition consultant for *Parents' Magazine*.

Professor Taylor and Professor Emeritus Grace MacLeod, with two of their former students, had an article in the April issue of the *Journal of Nutrition* on the energy expenditure of boys cycling.

BUSINESS AND VOCATIONAL EDUCATION

The second annual summer conference on International Business Education will be held at Teachers College July 23 and 24. The theme of the conference is "Business Education at the Post-High School Level in Europe and America." Professor Hamden Forkner will talk on "The Economic and Social Conditions in Western Europe and Their Implications for Education in America" at the dinner the evening of July 23. An exhibit of teaching materials and office equipment of interest to business teachers will be shown during the conference.

Professor Forkner's article on "Education—the Hope of America," appeared in the 1947 *Proceedings of the National Office Management Association*. The *Dictaphone Educational Forum* for January and February, 1948, carried an article by Professor Forkner entitled "Let's Improve Teacher Education."

The meeting of the National Association of Business Teacher-Training Institutions in Atlantic City February 20 heard Professor Forkner on "Which Way Europe?" He also spoke at a meeting of the National Office Management Association in Toronto, Canada, on March 16, on "Cooperation in Educational Planning."

On March 26, a Teachers College alumni luncheon was held in conjunction with the meeting of the Eastern Business Teachers Association in Philadelphia.

HEALTH EDUCATION AND PHYSICAL EDUCATION

Three arts and crafts workshops sponsored by the North Carolina Recreation Commission, the bureau of recreation of the University Extension Division, and the North Carolina Recreation Society during the spring were directed by Miss Marguerite Ickis. The workshops were held in Kinston March 8 to 12, Greensboro March 15 to 19, and Monroe March 22 to 27.

Professor Josephine L. Rathbone gave a lecture on February 26 on relaxation at a course conducted by the New York Societies of Physical Therapy and Occupational Therapy at the New York Hospital, New York City.

On March 3, Professor Rathbone attended the meeting of the New York Society of Physical Medicine as a consultant on two papers on reconstructive surgery, and on March 15 to 17, she attended the meetings of the Societies of Biological Sciences in Atlantic City. She met with the committee on implications of physical reconditioning for physical education at Teachers College on March 19 and 20.

At the annual spring educational conference of the New Haven, Conn., State Teachers College, April 3, Professor Herbert Walker spoke on "Recent Developments in Health Education."

Division V

Nursing Education

During March, Miss Agnes Gelinas, chairman of the department of nursing of the New York Post-Graduate Hospital, and Dr. R. Will Burnett of the college of education at the University of Illinois, made a survey of the natural science program of the Division as a step in a project supported by the Kellogg Foundation. The survey will contribute to the curriculum study now in progress in the Division. Both Miss Gelinas and Dr. Burnett are graduates of Teachers College.

Professor Helen F. Storen acted as director of a workshop for head nurses of Hartford, Conn., Hospital March 8 to 12.

The Pan-Hellenic Forum in Louisville, Ky., heard a talk by Miss Grace Marr on January 25.

The Advisory Nursing Committee of the American Cancer Society, headed by Instructor Katherine R. Nelson, is assisting in the preparation of a manual on cancer nursing. Almost all of the members of the committee are former students at Teachers College.

The Library

Professor Ethel M. Feagley met with the joint committees of the NEA and the American Library Association in Atlantic City recently concerning a projected publication on the subject of library education for teachers.

The *Beginners Guide to Bibliography* has been revised by Professor Eleanor M. Witmer and Professor Feagley. Professor Witmer and Professor Emeritus May B. Van Arsdale have written a new brochure on the history of the College entitled *Introducing Teachers College.*

The Chicago meeting of the American Library Association was attended by Professor Witmer, who participated in the work of the committee on salaries, staff and tenure.

At a meeting of the Parents-Teachers Association of the Workshop School of New York City March 10, Miss Alice N. Fedder, director of the school library laboratory, was the principal speaker.

Students from Other Lands

A practicum for foreign student advisers will be offered by Professor Clarence Linton and Miss Virginia French at Teachers College from July 6 to August 13—the first step toward offering professional preparation for those engaged in counseling and orientation programs for students from other lands.

Professor Linton is chairman of the constitution committee for a proposed National Association of Foreign Student Advisers which met at Ann Arbor, Mich., May 10 to 12.

On March 31, Professor Linton spoke before the American College Personnel Association meeting in Chicago on "Counseling Students from Overseas."

Office of Field Relations and Placement*

The following list continues the appointments of the Teachers College Alumni reported in the April issue of the RECORD.

Ryan, Josephine Sheila, instructor in Speech, Teachers College of Connecticut, New Britain.

Rydberg, Mildred Keane (A.M. 1947), teacher of music, Horace Mann-Lincoln School, New York, N. Y.

Sandin, Adolph A. (Ph.D. 1944), chairman, professional education division, University of Minnesota, Minneapolis, Minn.

Santora, Olga (B.S. 1941), teacher of second and third grades, Elmer Avenue School, Schenectady, N. Y.

Schelske, Alvin H. (A.M. 1947), supervisor of classroom practice, Southern Idaho College of Education Training School, Albion, Idaho.

Scherwitzky, Marjorie (A.M. 1947), teacher of first and second grades, Dependents School, Bremerhaven, Germany.

Schindel, Ellen B. (A.M. 1947), research assistant, Caroline Zachry Institute, New York.

Scott, Concetta T. (A.M. 1945), teacher of special classes, Clinton School, Rockville Center, N. Y.

Seda, Gladys A. (A.M. 1947), instructor in Spanish, Lake Erie College, Painesville, Ohio.

Serposs, Emile H. (A.M. 1945), head of music department, High Point College, High Point, N. C.

Shafer, Harold T. (A.M. 1947), curriculum coordinator of secondary schools, Public Schools, Los Angeles, Calif.

Siennicki, Edmund J., supervisor of music, Public Schools, St. Ignace, Mich.

Sill, Helen C. (A.M. 1942), librarian, Public Schools, Scarsdale, N. Y.

Simmons, Mary McKee (A.M. 1936), principal of Lower School, Brooklyn Friends School.

Slockbower, Edward W. (Ed.D. 1943), director of art education, San Francisco Unified School District, San Francisco, Calif.

Smith, Richard P. (A.M. 1947), teacher of social studies, High School, Hollis, Me.

Spector, Irwin (A.M. 1940), chairman, department of music, Monmouth Junior College, Long Branch, N. J.

Spinosa, Charles B. (A.M. 1947), principal, Powerville Elementary School, Boonton Township, N. J.

Spors, Milton R. (A.M. 1947), band director, High School, Mt. Horeb, Wis.

Stark, Stanley (A.M. 1947), supervisor of art, Roxbury High School, Succasunna, N. J.

Steele, Fred E. (A.M. 1939), instructor in English, United States Merchant Marine Academy, Kings Point, N. Y.

Steibel, Gerald L. (A.M. 1947), teacher of social studies, Murray Hill High School, New York, N. Y.

Stockwell, Marian Beans (A.M. 1947), junior director, YWCA, White Plains, N. Y.

Stokesberry, Jack (A.M. 1947), instructor in English, Seton Hall College, South Orange, N. J.

Striplin, Estella Allen, head resident, Sprague Hall, Ohio University, Athens, Ohio.

Tasch, Ruth Jacobson (A.M. 1942), instructor in child psychology, University of Oklahoma, Norman, Okla.

Van Noppen, Ina Woestemeyer (Ed.D. 1937), professor of history, Appalachian State Teachers College, Boone, N. C.

Weida, Frances E. (A.M. 1947), teacher of music, Raub Jr. High School, Allentown, Pa.

Weingrad, Murray, teacher of social studies, Willard Junior High School, Stamford, Conn.

Weinstein, Walter W. (A.M. 1947), teacher of social studies, Children's Village High School, Dobbs Ferry, N. Y.

Welch, Ernestine O. (A.M. 1947), social investigator, Department of Welfare, Long Island City, N. Y.

Wieberg, Janet, teacher of first grade, Public School, Walnut Creek, Calif.

Willment, Franklin M. (A.M. 1947), teacher of English and social studies, Special School District, Georgetown, Del.

Wittemeier, Edward H. (A.M. 1941), teacher of English and social studies, Public School, Port Jefferson, N. Y.

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* Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Field Relations and Placement. For initial registrations covering three years, no fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Wright, Norma O. (A.M. 1944), teacher of music, Thomas Jefferson Junior High School, Passaic, N. J.

Yount, Freeman A. (A.M. 1947), instructor in music, Klamath (Ore.) Union High School.

The following recent appointments of Teachers College Alumni were reported by the Office of Field Relations and Placement for March:

Arneth, Jacob P., teacher of social studies, Belmont Boulevard School, Elmont, N. Y.

Bower, Margaret M. (A.M. 1945), supervisor of music education, Public Schools, Kankakee, Ill.

Braunstein, Gladys, kindergarten teacher, Falk Elementary School, Pittsburgh, Pa.

Buebendorf, Francis (Ed.D. 1947), conductor of conservatory orchestra, Conservatory of Music of Kansas City, Kansas City, Mo.

Cleaver, Priscilla, kindergarten teacher, Arrandale Avenue School, Great Neck, New York.

Cooke, Clara Godette (A.M. 1947), instructor in English, Douglass High School, Bartlesville, Okla.

Deladrier, Andre Richard (A.M. 1947), instructor in physical education, Ohio State University, Columbus, Ohio.

Dodson, Alberta (A.M. 1934), assistant professor of home economics, Carnegie Institute of Technology, Pittsburgh, Pa.

Graves, Winifred S. (A.M. 1912), clinical psychologist, Indiana Council for Mental Health, Indianapolis, Ind.

Grossman, Helen Breneman (A.M. 1947), teacher of music, Greenvale School and J. Fenimore Cooper School, Scarsdale, N. Y.

Hansler, George E. (A.M. 1947), head of vocal music, Public Schools, Dumont, N. J.

Heim, Mary Carney, instructor in music, State Teachers College, Jacksonville, Ala.

Hyams, Gertrude, educational field consultant, Department of Health, Bureau of Child Hygiene, New York, N. Y.

Johnson, Caldwell (A.M. 1932), director of vocal music, State Teachers College, Eau Claire, Wis.

Jovanovic, John, director of music, Morgan County Schools, Paw Paw, W. Va.

Krause, Betty Schmidt (A.M. 1947), assistant professor of art, Lake Erie College, Painesville, Ohio.

Lowry, Gainor, nursery school teacher, Queens School, Forest Hills, N. Y.

Mitchell, Helen de Ramus (A.M. 1947), health educator, Department of Health, New York, N. Y.

Raymond, Elizabeth J. (A.M. 1947), instructor in education, Vance School, Teachers College of Connecticut, New Britain, Conn.

Rountree, Constance W. (B.S. 1940), teacher of fourth grade, Liberty Street School, Penn Yan, N. Y.

Ryan, Mack J. (A.M. 1947), teacher of social studies, Elmira Veterans School, Elmira, N. Y.

Tusler, Orlando C. (A.M. 1947), director of remedial education, Pleasantville, N. Y.

Walker, Millard C. (A.M. 1946), instructor of voice, University of Minnesota, Minneapolis.

Warner, Truman A. (A.M. 1947), teacher of social studies, Briarcliff High School, Briarcliff Manor, N. Y.

Weil, Leroy (A.M. 1944), minister of music, Evangelical Reformed Church, Burlington, N. C.

The following recent appointments of Teachers College Alumni were reported by the Office of Field Relations and Placement for April:

Aldrich, Eleanora L. (B.S. 1938), assistant director, Division of Nursing, Alfred University, Alfred, N. Y.

Babcock, Myrtle H. (M.S. 1946), consultant in nutrition, Waterbury Nutrition Council, Waterbury, Conn.

Backus, Charles W. (A.M. 1947), teacher of mathematics, High School, Boonton, N. J.

Baker, Emily V. (Ed.D. 1943), associate professor of education, Arizona State College, Tempe, Ariz.

Bennett, Violet Rasmussen (A.M. 1920), restaurant manager, Hotel Grosvenor, New York, N. Y.

Berchin, Harry (A.M. 1947), instructor in instrumental music, Baltimore County, Md.

Bernstein, Benjamin B. (Prof. Dip. 1947), assistant professor of music, Hampton Institute, Hampton, Va.

Booth, Muriel E. (A.M. 1947), instructor in English, Jonathan Dayton Regional High School, Springfield, N. J.

Bowman, Charles Howard, Jr., supervisor of music, Public School, Claymont, Del.

Brockman, Martha L. (A.M. 1944), instructor in education, State College of Washington, Pullman, Wash.

Brown, Doris Marjorie (A.M. 1947), kindergarten supervisor and college instructor, San Francisco State College, San Francisco, Calif.

Burbank, Natt B. (A.M. 1931), superintendent of schools, Melrose, Mass.

Call, Esther B. (A.M. 1943), head of home economics department, Lewiston State Normal School, Lewiston, Idaho.

Chapitis, William J. (A.M. 1931), instructor in modern languages, Colorado School of Mines, Golden, Colo.

Chetel, Mitchel (A.M. 1947), instructor in piano, School for Modern Music, Newark, N. J.

Chomitz, David L. (A.M. 1947), instructor in commercial education, The Taylor School, Philadelphia, Pa.

Crowder, Evelyn Louise (A.M. 1944), instructor in business education, Edison High School, Stockton, Calif.

Danfelt, Edwin Douglas (A.M. 1947), band instructor, High School, Albany, N. Y.

Dickey, Lester L., superintendent of schools, Public Schools, Marion, Ohio.

Dunn, James Gerard (A.M. 1947), teacher of English, High School, North Plainfield, N. J.

Ebeling, Alma (A.M. 1932), program director, House of Industry, Philadelphia, Pa.

Ebersole, Walter K. (A.M. 1946), supervisor of music, Union School, Bellport, N. Y.

Ekas, Gertrude Stewart (A.M. 1935), assistant professor of psychology, Berea College, Berea, Ky.

Falk, Nils (A.M. 1947), instructor in voice and German, Oklahoma College for Women, Chickasha, Okla.

Falt, Russell M. (A.M. 1947), instructor in music, Concord College, Athens, W. Va.

George, Louis C. (A.M. 1938), director in health and physical education, High School, Saranac Lake, N. Y.

Gilman, Albert (A.M. 1947), instructor in English, University of Wyoming, Laramie.

Greger, Irving (A.M. 1947), financial adviser, The City College of the City of New York, New York, N. Y.

Grewe, Robert (A.M. 1947), teacher of mathematics, Senior High School, Logan, Ohio.

Griffith, Edwin H. (A.M. 1947), director of intercultural relations, National Conference of Christians and Jews, Pittsburgh, Pa.

Hancock, Leah A. (A.M. 1937), instructor in home economics, State Teachers College, Indiana, Pa.

Haynes, Edena Schaumberg (A.M. 1924), associate professor of home economics, University of Delaware, Newark, Del.

Heiss, William C., Jr., instructor in English, University of Detroit, Detroit, Mich.

Hemphill, William Donald (A.M. 1947), director of instrumental music, Public Schools, Nashville, Tenn.

Henderson, John D. (A.M. 1947), teacher of English and social studies, High School, Moira, N. Y.

Hougen, Leif Arnold (Ed.D. 1947), director of special services, Board of Education, Royal Oak, Mich.

Hoyt, Byrona (A.M. 1947), supervisor of music, Public Schools, West Hempstead, N. Y.

Huetter, Albert C. (A.M. 1947), teacher of physical education, South Park High School, Buffalo, N. Y.

Jalli, Edward J. (A.M. 1941), athletic director, Fall River Joint Union High School, McArthur, Calif.

Janeway, Thomas M. (A.M. 1947), assistant professor of health education and biology, Northern Illinois State Teachers College, De Kalb, Ill.

Johnson, Davis G. (A.M. 1947), vocational counselor, Vocational Counseling Service, Inc., New Haven, Conn.

Kalaida, Lydia B. (A.M. 1947), instructor in music, Bridgewater Central School, Bridgewater, N. Y.

Kelly, Eleanor G. (A.M. 1938), second grade critic teacher, Practice School, State Teachers College, Buffalo, N. Y.

Koski, George W. (A.M. 1948), teacher of piano, Southern College of Fine Arts, Houston, Tex.

Langford, Mary F., teacher of languages, High School, Atlantic City, N. J.

Largman, Roselynd Golden (A.M. 1946), lecturer and accompanist in physical education, Temple University, Philadelphia, Pa.

Lauer, William A. (A.M. 1947), supervisor of instrumental music, Montgomery County, Md.

Lennon, Lester (A.M. 1940), director of health and physical education, Roanoke College, Salem, Va.

Limbach, Alberta E. (B.S. 1939), food director, YWCA cafeteria, Gary, Ind.

Lynch, Marion Walmsley (A.M. 1937), teacher of Spanish, Berea College, Berea, Ky.

Martin, Louise Pfleghar (B.S. 1945), clinical instructor, The Hospital of the Good Samaritan, Los Angeles, Calif.

McClure, Margaret Jean (A.M. 1947), instructor in music, Culver-Stockton College, Canton, Mo.

McCullough, Thomas F. (A.M. 1946), athletic director, Pacific Lodge High School, Los Angeles, Calif.

Miller, Alfred K., director of band and orchestra, Davis High School, Mount Vernon, N. Y.

Miller, Herbert L. (A.M. 1937), teacher of music, Junior High School No. 52, New York, N. Y.

Moyer, Roy R. (A.M. 1947), teacher of English, Anatolia College, Thessaloniki, Greece.

Nunan, Seamus (A.M. 1947), district audio-visual coordinator, Desert School District, Palm Springs, Calif.

Nunn, Esther M. (B.S. 1947), teacher of grades five and six, Public School, Valley Stream, N. Y.

Ollila, Hilma Helene, teacher of Spanish, Dalton School, New York, N. Y.

Page, Elizabeth Ellen (A.M. 1945), nursery school director, Michigan State College, East Lansing, Mich.

Parks, Penrose Byron (A.M. 1947), assistant dean of men and counselor, Agricultural and Technical College of North Carolina, Greensboro, N. C.

Pefley, Wallace B. (Prof. Dip. 1947), instructor in voice and choral director, Eleanor Searle Whitney School of Music, Florida Southern College, Lakeland, Fla.

Pettas, Mary (A.M. 1942), instructor in speech, New York University, New York.

Purcell, Alice (A.M. 1945), instructor in piano, University of South Carolina, Columbia, S. C.

Radtke, Robert B. (A.M. 1947), teacher of common branches, Hawthorne Cedar Knolls School, Hawthorne, N. Y.

Refshauge, Lucille M. (M.S. 1944), director of dietetics, Hartford Hospital, Hartford, Conn.

Rein, Melvin D. (A.M. 1947), instructor in music, State Teachers College, Oswego, N. Y.

Reyling, Clemence (A.M. 1947), teacher of fourth grade, Brooklyn Avenue School, Valley Stream, N. Y.

Richards, Margaret Jane (A.M. 1947), residence counselor, Florida State University, Tallahassee, Fla.

Roane, Sandra D. (A.M. 1947), instructor in French and English, Bluefield State College, Bluefield, W. Va.

Robinson, Isabella, director of residence hall, Goucher College, Baltimore, Md.

Rose, Susie Roberts (A.M. 1945), assistant professor of home economics, State Teachers College, Plattsburg, N. Y.

Rosenbrock, Grace L. (A.M. 1940), instructor in demonstration school, State Teachers College, Plattsburg, N. Y.

Santilli, Muriel E. (A.M. 1947), kindergarten teacher, Public Schools, Richmond, Calif.

Schaeffer, Rudolf F. (A.M. 1941), assistant professor of German, U.S. Navy Intelligence School, Anacostia, Washington, D. C.

Scott, Kenneth W. (A.M. 1947), instructor in English, Long Island University, Brooklyn, N. Y.

Sellers, Gwen Gallagher (A.M. 1947), group teacher, Walt Whitman School, New York.

Shay, Joseph B. (A.M. 1947), psychologist-counselor, Jewish Vocational Service, Detroit.

Shibli, J. (Ph.D. 1932), professor of mathematics, Presbyterian College, Clinton, S. C.

Shrewsbury, William (A.M. 1947), teacher and acting principal, Pomeroy School, Pomeroy, Pa.

Smith, Marian Laura (A.M. 1947), teacher of home economics, Burroughs High School, Inyokern, Calif.

Spivack, Sarah Scherer, assistant psychometrist, University of Illinois, Urbana, Ill.

Starkweather, Dorothy A. (A.M. 1933), dietitian, Paul Smiths College, Paul Smiths, N. Y.

Sweeney, Gladys Boasmand, nursery school teacher, Stuyvesant House, New York, N. Y.

Taskerud, Esther (A.M. 1947), assistant state 4-H leader, Oregon State College, Corvallis, Ore.

Tower, Jean E. (B.S. 1947), staff nurse, Wayne County Health Department, Eloise, Mich.

Tusler, Orlando C. (A.M. 1947), director of remedial education, Pleasantville, N. Y.

Walker, Eileen T. (B.S. 1932), assistant director, Public Health Nursing Services, Jersey City, N. J.

Weeks, Elizabeth Ann (B.S. 1943), directress, Belle J. Michaels Nursery, Rochester, N. Y.

Weiner, Howard M. (A.M. 1941), instructor in chemistry, Bergen Junior College, Teaneck, N. J.

Wells, Eleanor F. (A.M. 1924), assistant residence director, YWCA, South Bend, Ind.

Wig, Anabelle Mary, instructor in music, High School, Smithtown Branch, N. Y.

Wilder, Fay A. (A.M. 1947), teacher of biology and social studies, High School, Hamburg, N. Y.

Woodburn, Rachel L., vice-principal, Yellowknife High School, Yellowknife, North West Territories, Canada.

The following recent appointments of Teachers College Alumni are reported by the Office of Field Relations and Placement for May:

Altschuler, Nathan (A.M. 1947), instructor in mathematics, University of Illinois, Urbana.

Andrushiw, Olga (B.S. 1947), instructor in nursing education, University of Texas College of Nursing, Galveston, Tex.

Apple, Joe A. (Ed.D. 1942), director, Campus Laboratory School, San Diego State College, San Diego, Calif.

Ayton, Alice Mary (A.M. 1947), instructor in physical education, State Teachers College, Oswego, N. Y.

Beary, Thomas J. (A.M. 1947), instructor in English, St. John's University, Brooklyn, N. Y.

Bloom, Josephine I. (A.M. 1948), kindergarten teacher, Sky Top School, New York, N. Y.

Brown, Esther (A.M. 1941), dietitian and teacher of home economics, Ethical Culture School, New York, N. Y.

Brussel, Juliet R. (A.M. 1940), acting director of department of physical education, Wilson College, Chambersburg, Pa.

Carson, Ruth A. (A.M. 1948), director, Corner Cupboard Tearoom, Broad St. YWCA, Hartford, Conn.

Crenshaw, Winnie D. (A.M. 1947), director of residence hall, Fairmont State College, Fairmont, W. Va.

De Castro, Joaquin B. (A.M. 1941), instructor in Spanish, University of Connecticut, Storrs, Conn.

Del Vecchio, Flora A. (A.M. 1943), teacher of third grade, Lincoln School, East Orange, N. J.

Donnelly, James B. (A.M. 1947), medical detailer, The Upjohn Company, New York, N. Y.

Fink, Paul J. (Prof. Dip. 1947), principal, Jefferson School, Allentown, Pa.

Frost, Dorothy M. (A.M. 1948), director, University Radio Forum, University of Washington, Seattle, Wash.

Godfrey, Agnes Mulvey (A.M. 1938), teacher of kindergarten and second grade, Burroughs School, China Lake, Calif.

Gold, Milton J., instructor in English, New York University, New York, N. Y.

Goldstein, Wallace L. (A.M. 1946), instructor in English, Paul Smiths College, Paul Smiths, N. Y.

Hinton, Rozella Ziegler (A.M. 1934), teacher of music, Public Schools, Carroll County, Maryland.

Jackson, Ellamae, assistant dean of women, Pennsylvania State College, State College, Pa.

Kiel, Camille C., assistant professor of physical education, West Virginia Institute of Technology, Montgomery, W. Va.

Kogut, Morton D., instructor in mathematics, Empire State School of Optics, Brooklyn, N. Y.

Lauer, Howard J., assistant instructor in mathematics, Willimantic State Teachers College, Willimantic, Conn.

Lobdell, Frederick L., principal, Berkshire Industrial Farm Schools, Canaan, N. Y.

Mc Gowan, Richard J. (A.M. 1947), teacher of seventh grade and instructor in physical education, Terryville School, Port Jefferson, N. Y.

Marienhoff, Ira (A.M. 1947), instructor in social studies, A. B. Davis High School, Mount Vernon, N. Y.

Masley, Alexander, chairman of art department, University of New Mexico, Albuquerque, N. Mex.

Morimoto, Sumiko (A. M. 1947), teacher of first grade, Liberty Hyde Bailey School, East Lansing, Mich.

Mulcaster, Anne M., director of cafeterias, Public Schools, Parma, Ohio.

O'Hare, Doris M., instructor and librarian, New York State Institute of Applied Arts and Sciences, White Plains, N. Y.

Oxman, Jacob, instructor in communication skills, New York State Agricultural and Technical Institute, Farmingdale, N. Y.

Pales, Marx J. (Prof. Dip. 1948), assistant professor of violin, University of Arkansas, Fayetteville, Ark.

Pavloff, Anna C. (A.M. 1945), director of health education department, YWCA, Niagara Falls, N. Y.

Piccini, Gregory R. (A.M. 1947), health educator, National Tuberculosis Association, New York, N. Y.

Reinhardt, Elizabeth B. (A.M. 1948), instructor in biological science, School of Nursing, Emory University, Emory University, Ga.

Rigg, LaVaun J. (B.S. 1947), kindergarten teacher, Saugatuck Elementary School, Westport, Conn.

Sinclair, Ruth (B.S. 1947), hospital dietitian, Muskoka, (Ont.) Gravenhurst, Cañada.

Thompson, Geneva W. (A.M. 1944), instructor in home economics, Princess Anne College, Princess Anne, Md.

Tripp, Virginia Agnes (B.S. 1947), dietitian and cafeteria manager, Haaren High School, New York, N. Y.

Truitt, Della B. (B.S. 1931), dietitian, St. Andrew's School, Middletown, Del.

Yarnall, Nancy S. (B.S. 1942), first grade teacher, Escuela "Campo Alegre", Caracas, Venezuela, S. A.

Yoshida, Toshiko (M.S. 1947), dietitian, Temple University, Philadelphia, Pa.

Zimmer, Frances K. (A.M. 1939), teacher of mathematics, High School Balboa, Canal Zone.

Alumni Activities

Burt P. Johnson (Ed.D. 1947) will serve for three months in Japan as adviser in the supervision of secondary education—the only visiting expert in this field from the U. S. An instructor at Teachers College, and principal of Tenafly, N. J., High School, Dr. Johnson left Washington by military plane the middle of March, and will return about June 15. His purpose is to advise and assist the Civil Information and Education Section of the Supreme Command for All Allied Powers in planning and starting a program for improving methods of supervision and administration of secondary schools. Dr. Johnson was recommended to the War Department by the U. S. Office of Education.

McGraw-Hill Publishing Company, New York, has announced the appointment of **Robert E. Slaughter**, former graduate student, as manager of its newly-created Department of Business Education, effective February 1, 1948. Mr. Slaughter has been advertising manager of the Gregg Publishing Company since 1945. His new duties include editing, production, and distribution of the new department's publications.

Howard A. Johnson (A.M. 1947) has resigned as assistant dean of students at the College of the City of New York's School of Business and Civic Administration to become associate dean of students of the Associated Colleges of Upper New York State.

A recreation specialist and veteran of both wars, **Arthur T. Noren** (B.S. 1922) has been appointed manager of the Veterans Administration regional office in Newark, N. J. Since February, 1946, Mr. Noren has been director of special VA services in Pennsylvania, New Jersey, and Delaware.

As new director of school building facilities in the department of public instruction, State of Washington, **Cleve O. Westby** (Ed.D. 1945) will direct surveys of school systems to determine building needs; make recommendations relative to these needs; examine and approve plans and specifications for new school plant construction, and suggest desirable allotments of state funds to assist local school districts in financing building programs.

Instructor in music education at Teachers College during 1946-47, **Kenneth N. Cuthbert** (Ed.D. 1947) has been named dean of the Illinois Wesleyan University school of music. Dr. Cuthbert will also continue his duties as director of the school's graduate division.

Formerly counselor of the School of Education and Community Services at Mills College, **Rosalind Cassidy** (Ed.D. 1937) has accepted a professorship in physical education at the University of California in Los Angeles. Recent books by Dr. Cassidy include *Counseling "Gives" in a Changing Society* (McGraw-Hill), with Dr. Hilda Kozman, and *Methods in Physical Education* (Saunders), with Dr. Kozman and Dr. C. O. Jackson.

Superintendent of New London, Conn., schools for two and a half years, **George Champlin** (Ed.D. 1938) will become superintendent of Willimantic, Conn., schools at the end of this school year.

LATE in February, ELIZABETH ROCHE (A.M. 1931), principal of Garfield School in Bridgeport, Conn., flew to Buenos Aires to begin a ten month study course in an Argentinian university. Miss Roche is pursuing her studies on one of two fellowships recently granted in the United States by the National Cultural Commission in Buenos Aires.

IN line with a policy of making the staff as well as the student body international, the University of Toronto has appointed ELIZABETH K. MCLAUGHLIN (A.M. 1947) lecturer in nursing. After a year in public health nursing, Miss McLaughlin was on a hospital staff in Colombia, South America, for two years. In 1942, she joined the Army Nurse Corps and saw service in the C. B. I. Theatre of Operations, achieving the rank of captain.

NEW jobholders among the 1947 recipients of master's degrees in student personnel administration include MAJOR WALTER J. SCHWEIGER, JR., U.S.A.F., assistant professor in military science and tactics, University of Wisconsin, Madison; CLYDE R. BAIRD, assistant professor in the department of education and psychology, Kansas State Teachers College, Pittsburg; EUNICE A. WILHITE, assistant chief, nursing education, at Veterans Administration Branch Area #9 in St. Louis, including ten hospitals; M. AUGUSTA EVANS, educational director, division of public health nursing, Government of Alberta, Edmonton, Canada, and ELAINE LYNN DE BORRA, assistant chief, nursing section, at Veterans Administration Branch #11, for Washington, Oregon, Idaho, and Montana.

DOCTOR of Education projects in business education by HARRY HUFFMAN (Ed.D. 1947) and JOHN ROWE (Ed.D. 1946) have been recently issued as special bulletins of the National Association of Teacher-Training Institutions, which publishes significant studies as a service to the 120 institutions which are members of the association. Dr. Huffman's work is entitled "The Use of Common Experiences in the Approach to Elementary Bookkeeping," and Dr. Rowe's, "Business Teacher Education in Selected State Teachers Colleges and Selected Liberal Arts Colleges."

LT. JANE C. FLANAGIN (A.M. 1948) appears on the fourth list of nominations for commission in the Regular Army in the physical therapist section of the Women's Medical Specialist Corps, recently authorized by the 80th Congress.

THE newly-created public relations post at Jackson College, Jackson, Miss., has been filled by DE LARS FUNCHES (A.M. 1948).

A $10,000 scholarship fund was set up May 15 when the alumni of Summit, N. J., High School gathered to honor their principal for 30 years, A. J. BARTHOLOMEW (A.M. 1921). Mr. Bartholomew is a former president of both the State High School Teachers Association and the State Secondary School Principals Association.

THE fourth of a series of Gwynedd, Pa., Community Lectures was delivered by E. RAYMOND WILSON (A.M. 1925), executive secretary of the Friends Committee on National Legislation, on March 21. His topic was "Our Christian Responsibility for Federal Legislation."

NEW head of the reading laboratory at Central High School, New Hyde Park, N. Y., LILLIAN GALLIMORE (A.M. 1944) represented the Sewanhaka, N. Y., schools, where she had taught since 1941, at the annual reading institute at Temple University, Philadelphia, February 1 to 6.

SUPERINTENDENT of schools in Caldwell, N. J., PAUL H. AXTELL (A.M. 1921) is giving a course in New Jersey school law at Montclair State Teachers College during the spring term.

New extension specialist in family relations at the North Carolina State College of Agriculture and Engineering, Raleigh, is Corinne Grimsley (A.M. 1945).

Wilhelmina Hill (Ed.D. 1939) of the University of Denver has been appointed regional director (Rocky Mountain States) of the Department of Supervision and Curriculum Development of the NEA and state representative for the American Education Fellowship for this year. She is also on the editorial board of *Scholastic Magazine*.

On March 21, John Davis (A.M. 1947), professor of voice at Green Mountain College, Poultney, Vt., took part in a program of organ and vocal music in Poultney.

Director of the Audio-Visual Center at the College of the City of New York, Louis S. Goodman (A.M. 1939) spoke on "Television, Present and Future," at the NEA conference in Atlantic City in February.

John Shilling (A.M. 1925), assistant state supervisor of public instruction in charge of secondary schools for Delaware, spoke at the Maryland State Teachers College in Salisbury, on March 19.

A special dinner meeting of the Fredonia, N. Y., Baptist Church, sponsored by the College Club and Missionary Council, presented Robert P. Daniel (Ph.D. 1932), president of Shaw University, Raleigh, N. C., as speaker.

The Lincoln, Central, and Roosevelt Parent-Teachers Associations of Caldwell, N. J., sponsored a combined meeting on March 11 to hear Evelyn Oelen (A.M. 1945), publicity director and instructor in English at New Jersey State Teachers College, Montclair, lead a discussion forum based on two motion pictures shown at the meeting.

As a member of the International Fellowship team, Fatemeh Behaeddin, former graduate student, spoke at a dinner meeting of Presbyterian Churches of Dayton, Newport, Covington, and Ludlow, Ky., on February 25. Miss Behaeddin is principal of Mehr School, Teheran, Iran.

Robert W. Gingrich (A.M. 1932), dean of boys at Mamaroneck, N. Y., Junior High School, was co-chairman on March 22 of the Fifth Community Institute sponsored jointly by the Board of Education, the Mamaroneck-Larchmont Parent Teacher Council, and the Mamaroneck Teachers Association.

Assistant conductor of the Youth Symphony Orchestra, sponsored by Trenton, N. J., Post 98, American Legion, John C. Bacso (A.M. 1946) conducted the 54-piece orchestra at a special concert in the Hopewell, New Jersey, Grammar School late in April.

At the end of a special training program at the Midwifery Maternity Center Association, Dorothy Doyle (B.S. 1945), who returned from service with UNRRA in China this December, intends to re-embark for that country and set up schools for nurses where native women may receive instruction.

Muriel L. Thomas (Ed.D. 1945), director of the school of nursing of Lynn Hospital, Lynn, Mass., has been giving talks to civic, church, and PTA groups on her hobby—a collection of over 200 bells from many countries.

"Bend in the River," a painting by Orval Kipp (A.M. 1936), director of art at the State Teachers College, Indiana, Pa., was shown at the Fifteenth Annual Exhibition of the Boston Society of Independent Artists, which presented nearly 600 paintings, drawings, prints, and pieces of sculpture from 27 states and Canada.

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